



AGENDA 21 THE FIRST FIVE YEARS



European Community progress on the implementation of Agenda 21
1992-97

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A great deal of additional information on the European Union is available on the Internet. It can be accessed through the Europa server (<http://europa.eu.int>)

Cataloguing data can be found at the end of this publication

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Preface

Ritt BJERREGAARD
Member of the European Commission,
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The Rio Conference in 1992 drew up Agenda 21 as a blueprint for a sustainable future.

Five years later, it is a good moment for us to take stock of progress: it is 40 years since the first European countries came together in Rome, in the spirit of mutual cooperation, and formed what is today the European Union; it is also 25 years since the seminal Stockholm Conference where the international community first gathered to ensure a secure environmental future for our planet. Have we made good progress in Europe since Rio when it comes to protecting our environment? Yes, but we still have much to do.

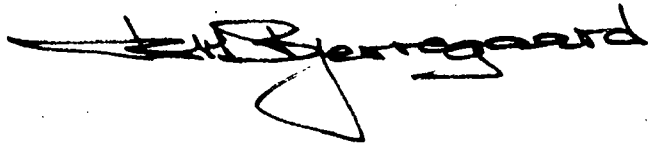
We know that achieving sustainable development depends on integrating economic and social development and environmental protection, within a democratic framework which empowers all sectors of societies. We need to move towards economic development which is based on environmentally sustainable production and consumption patterns. The European Union has made significant headway in placing these ideas at the heart of its own internal agenda.

The eradication of poverty is fundamental to moving towards sustainable development in developing countries. Here too, the European Community's aid programmes are increasingly focused on this objective.

Over the coming years we will face a series of difficult choices about what it means in practice — and in hard economic terms — to pursue sustainable development.

The 1997 UN General Assembly Special Session provides the international community with the opportunity to reaffirm, individually and collectively, our strong political will to re-energize the Rio process, and thus to make those hard choices. Earth Summit II challenges us to build on the achievements of the last five years, to look critically at the problems that are still facing us, and to make firm commitments on further progress.

*The Rio Earth Summit was a big step forward for humanity and the planet. On the basis of the Rio blueprint we have put the necessary frameworks for action in place. **The watchword from Earth Summit II must be implementation.** We must make clear and tangible steps towards sustainable development as we enter the 21st century.*

A handwritten signature in black ink, appearing to read "B. J. Berregaard". The signature is stylized with a large, sweeping loop at the end.

Introduction

This report has been prepared for the 1997 United Nations General Assembly Special Session (UNGASS) to review Agenda 21 and related outcomes of the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in June 1992. It is a statement of progress made by the European Community in implementing Agenda 21 and is intended to complement the national reports presented by individual Member States.

This report builds on the benchmark report which was prepared for the 1992 Conference. That report provided a clear statement of European Community policy, setting out the environmental situation in Europe and giving views on the way forward. The original report was supplemented by four annual follow-up reports to the Commission for Sustainable Development (CSD) which focused on the Agenda 21 issues on the CSD's work programme that year. Those annual reports also included an overview of Community activity on sustainable development in the preceding year.

The present report may be considered as a consolidated overview of progress since 1992. It follows the structure of Agenda 21.

The Fifth Environmental Action Programme and the 1995 Review

Although published three months before UNCED, the Fifth Environmental Action Programme (fifth EAP), whose full title is *Towards sustainability — a European Community programme of policy and action in relation to the environment and sustainable development*, was prepared in parallel with the principal Rio Agreements. As a result, the programme shares many of the same

strategic objectives and principles as UNCED. In particular, the fifth EAP stresses the central importance of integrating economic, social and environmental factors in decision-making at all levels, and recognizes the importance of a new model of development that leads to the fulfilment of basic needs, improved living standards, more efficient consumption and production patterns, and better managed ecosystems.

The 1995 Review of the Fifth Environmental Action Programme, which constituted a comprehensive appraisal of developments since 1992, provided an excellent opportunity to assess the progress that had been made towards fulfilling the commitments made by the European Community in Agenda 21. Inevitably, the Review of the fifth EAP concentrated mainly on progress within Europe and on the environmental dimension. The European Commission drew a number of conclusions from the Review and has made a proposal for a Decision with an Action Plan by the Council of Ministers and the European Parliament, which is currently being considered by those Institutions. The key proposals in the Action Plan are set out in the box below.

This report draws on, and complements, the Review of the fifth EAP, by giving greater prominence to the international dimension.

Proposals in the draft Decision on the Review of the Fifth Environmental Action Programme

Key priorities for implementation

1. *Specific measures integrating the environment in*
 - agriculture
 - transport
 - energy
 - industry
 - tourism
2. *Broadening the range of instruments*
 - develop the use of market-based instruments
 - targeted revision to improve effectiveness of European Union regulations
 - further develop Eco-Management and Audit Scheme (EMAS)
 - sustainable use of Community financial mechanisms
3. *Implementation and enforcement*
 - improve legislation
 - improve reporting requirements
 - enhance cooperation between authorities at different levels
 - consider sanctions for non-compliance
4. *Awareness-raising and information*
 - prepare targeted information and communication strategy
 - improve access to information
 - enhance training and education
5. *International cooperation*
 - reinforce role in international sustainable development issues
 - integrate environment and trade policies
 - strengthen cooperation particularly with central and eastern Europe and the Mediterranean countries
 - improve the environmental dimension of development cooperation

Other priorities for implementation

6. *Improve the data and research and development basis for environmental policy-making*
7. *Promote sustainable production and consumption*
8. *Promote shared responsibility and partnership*
9. *Promote local and regional initiatives*
10. *Give further attention to the main environmental themes*
(climate change and ozone depletion, acidification and air quality, management of water resources, waste management, noise, nature protection and biodiversity, management of risks and accidents)



SECTION 1

**Social and economic
dimensions**



Chapter 2

International cooperation to accelerate sustainable development in developing countries and related domestic policies

Agenda 21 spoke of global partnership and of the need to foster a climate of cooperation between nations. The interdependence of economies means that a supportive international economic environment is essential for the achievement of sustainable development. The Agenda identified three key policy areas in international cooperation: trade and environment, development policy and debt.

Trade and environment

The European Community actively participates in the work on trade and environment which is taking place in international forums such as WTO, UNEP, UNCTAD and OECD. A communication issued by the European Commission in February 1996 gave rise to a broad policy debate on this matter with the involvement of all European Community institutions and relevant non-governmental actors. This led to the identification of a certain number of principles on which the European Union's stance in the international debate on trade and environment is based.

These principles, which were set out in the Conclusions on Trade and Environment adopted by the General Affairs Council in July 1996, particularly stress the following:

- Trade and environmental protection can play a mutually supportive role in favour of sustainable development. Provided that effective environmental policies and sustainable development strategies are implemented, trade makes possible a more efficient use of natural resources in both economic and environmental terms. The conclusion of the Uruguay Round of Multilateral Trade Negotiations has therefore been one of the most important recent contributions to the promotion of sustainable development.
- Environmental protection does not necessarily have a negative impact on international competitiveness. Environmental policies can provide an incentive for technological innovation, promote economic efficiency and improve overall competitiveness.
- Trade and environment issues must be approached in ways that do not jeopardize the sustainable development prospects of developing countries or undermine their overall export performance. Efforts should be made to enhance market access opportunities for environmentally friendly products from developing countries.
- The European Union should remain strongly committed to a multilateral approach as the most effective way to tackle global and transboundary environmental problems. Furthermore, differences in environmental policies should not result in the introduction of environmental countervailing duties or other trade measures to protect domestic industry.

The establishment of the WTO Committee on Trade and Environment (CTE) raised considerable expectations in the European Union. The Community took an active part in the deliberations of this Committee and expressed the view that it should be able to submit specific recommendations — at least on some items in its work programme — to the first WTO Ministerial Conference held in Singapore in December 1996. The European Union's commitment to a multilateral approach to addressing global environmental problems meant that clarifying the relationship between trade measures pursuant to Multilateral Environmental Agreements (MEAs) and WTO rules was the Union's main goal for the Singapore meeting. The Community also made a proposal aimed at improving transparency in the operation of voluntary eco-labelling schemes and at securing the integrity of the life-cycle approach.

Unfortunately, the Community's efforts to move forward the CTE's deliberations were not entirely successful. Although the CTE's report contained some valuable elements, it did not entirely meet the European Union's initial hopes for the Singapore meeting.

Enhancing the mutual supportiveness of trade and environmental policies in favour of sustainable development will however remain a basic European Union objective in the implementation of Agenda 21. The European Community will therefore continue to play a proactive role in the deliberations of the CTE and other competent international forums, taking into account not only the need to avoid unnecessary obstacles to trade and development but also the need to promote the integration of environmental requirements and objectives into the multilateral trading system.

Development policy

The Union has reconsidered its approach to development policy as a result of the adoption in 1992 of the Treaty on European Union (the Maastricht Treaty) which for the first time introduced a specific chapter on development into the Union's basic texts. The Treaty specified that Community policy was to be complementary to the policies pursued by Member States and was to foster:

- the sustainable economic and social development of developing countries and particularly the most disadvantaged of them;
- the integration of developing countries into the world economy;
- the campaign against poverty in developing countries.

Community development policy was to contribute to the general objective of developing and consolidating democracy and the rule of law, and to that of respecting human rights and fundamental freedoms. Furthermore the Treaty mandated both the European Community and the Member States to comply with the commitments and take account of the objectives they had approved in the context of the United Nations and other competent international organizations.

The Community has also passed Resolutions since 1992 on fundamental issues such as human rights, democracy and development, gender issues and development, non-governmental organizations and development; and on important fields of cooperation such as poverty, population and development, health, HIV/AIDS, education and training, food security, energy, migration, regional integration and research. In addition there have been Resolutions on particular forms of support such as structural adjustment, decentralized cooperation, emergency aid and rehabilitation aid and on techniques for improving aid quality including environmental assessment and evaluation. The Council also adopted a number of Regulations better defining the use of existing forms of aid.

In November 1996 the Council adopted an important Resolution on Human and Social Development and European Union Development Policy which stressed the need for a people-oriented emphasis in development and recognized that the

objectives of Union development policy depend crucially on human and social factors. The Resolution called for action in the following areas:

- human empowerment: increasing the range of human choice, so that people are the subjects of the development process rather than objects for development interventions from outsiders. A solid base of education and skills is essential, as is gender balance and the empowerment of women;
- good governance and a vibrant civil society: democratic and accountable political institutions, freedom of information and expression, a fair and reliable judicial system, and cooperation with organizations of civil society are key features of development strategies;
- providing an enabling economic environment: with special attention to the expansion of employment and productivity of work which are crucial for economic growth and income distribution in developing countries and thus for the campaign to reduce poverty and achieve sustainable development;
- health: advances in health are an essential factor in improving people's livelihoods and in making the best use of human resources. These advances result both from progress in living conditions and from the quantitative and qualitative development of health care systems;
- education and training: education is a basic prerequisite for promoting equal opportunity, economic growth and the reduction of poverty. It is a powerful tool against discrimination and for the promotion of fundamental human rights.

The Resolution acknowledged the need for traditional macroeconomic dialogue with partner countries on economic reform and debt relief to take place in the context of these underpinning development objectives. It stressed the particular importance of financing for health and education activities. The Council urged that indicators used to assess development performance of partner countries should include socioeconomic issues such as those set out in the Resolution. In addition, the Council considered that the European Union should put greater emphasis on efforts and results in poverty reduction and human and social development when making decisions on funding.

Also in November 1996, the European Commission launched a discussion document on relations between the European Union and the African, Caribbean and Pacific (ACP) countries on the eve of the 21st century. Known as the Green Paper, the document is intended to stimulate debate about the challenges and options for a partnership after the expiry of Lomé IV in February 2000. Discussions on the basis of the European Commission's Green Paper are currently taking place in a wide variety of forums, involving official as well as non-official actors, in Europe and in the ACP countries. After this debate, the European Commission will put forward new

proposals, taking into account the opinions and suggestions that will have emerged from this wide and unprecedented consultation process.

Debt

As a major donor to most of the highly indebted poorest countries, the Community has a key interest in ensuring that their adjustment and development efforts are not constrained by an unsustainable debt burden. Indeed, the debt issue has been a major concern to the ACP States during negotiations of successive Lomé Conventions. In recent years, the Community has taken several measures in order to prevent a further increase in the ACP States' debt to the Community. Since Lomé IV, all European Development Fund (EDF) resources apart from risk capital are provided as grants. The special loan instrument has been replaced by grants and there is no longer a requirement for countries receiving Stabex transfers to contribute to the replenishment of the system. Furthermore, in 1991, the Council decided to abandon the obligation to contribute to the repayment of Stabex resources granted under earlier Conventions, and in the context of the mid-term revision of Lomé IV in 1995, the Community agreed to transform all uncommitted special loans of the previous Conventions into grants. Lending from the European Investment Bank to the poorest countries continues to be made on subsidized terms.

Since Rio, the Community has supported major advances that have been made in the global framework for tackling the debt problems of developing countries including the agreement of Naples Terms for Paris Club (bilateral government) debt. The Community has also supported a World Bank/IMF led initiative aimed at ensuring that the overall debt burden of heavily indebted poorest countries (HIPCs) is brought down to sustainable levels. This initiative was agreed at the 1996 IMF/World Bank annual meetings. Although the European Community is a relatively small creditor in the context of the initiative, 11 of the 13 countries currently expected to qualify for assistance under the initiative are ACP states with Community-level debt outstanding. Under the initiative, all creditors — bilateral, commercial and multilateral — are committed to taking coordinated action to ensure that all HIPCs in adjustment have the prospect of achieving sustainable debt levels within a reasonable timeframe. In this context, the European Commission has recently presented a communication to the Council, proposing further ways in which the Community can play its part in this global effort to deal with the debt problems of the HIPCs, both as donor and creditor.



Chapter 3

Combating poverty

Poverty is both a result and a cause of unsustainable activity. Agenda 21 asked governments to develop strategies to enable all people to achieve sustainable livelihoods, and the eradication of poverty was a major theme of the 1995 Copenhagen World Summit on Social Development. The European Community played an active role in the Summit and has followed this up by taking steps, where appropriate, to implement the Copenhagen Programme of Action. The programme goes wider than poverty eradication and also covers actions to combat social exclusion, a subject to which the European Union attaches great importance.

Poverty and social exclusion in the European Union

The concept of poverty is defined in the European Union as affecting 'persons, families and groups of persons whose resources (material, cultural and social) are so limited as to exclude them from the minimum acceptable way of life in the Member States in which they live' and is measured simply in terms of income and expenditure. At the end of 1992, there were more than 50 million citizens of the European Union classified as living in poverty (i.e. living in households whose total expenditure is less than 50% of the national average).

Action to fight poverty and social exclusion is mainly the responsibility of Member States. However, since 1975 the European Community has regularly contributed to Member State initiatives through the three successive Poverty

programmes and other complementary initiatives. Particular attention has been given recently to the importance of improving operational coordination between fighting poverty and other social exclusion factors, through initiatives such as the European Regional Development Fund's (ERDF) activities in city areas, the European Social Fund's (ESF) Horizon, NOW and Integra schemes, as well as relevant research projects and pilot actions. The role of NGOs and other social partners has also been recognized, both as vehicles for channelling support and as sources of advice.

Poverty and development cooperation

The Treaty on European Union highlights the fight against poverty as one of the main goals of development cooperation. In recent years there has been particular concern to enhance coordination between the European Community and the Member States in order to maximize the benefits of development aid. This resulted in agreement in 1993 on common principles and priorities in the field of poverty alleviation through a Resolution adopted at the December 1993 Development Council. The Resolution has a particular focus on improving coordination in terms of policy, forward planning and project implementation both within Community aid, and between Community actions and the actions of Member States.

In order to improve Member States' coordination of the Community's poverty reduction strategy, an initiative was developed in seven pilot countries: Bangladesh, Ethiopia, Ghana, Mali, Mozambique, Nicaragua and Peru. The agreed methodology was to start with a poverty assessment and then to focus on developing operational coordination between Member States in their sectoral policies. As a result of the assessments, rural development, including feeder roads, was identified as making an important contribution to poverty reduction in Ghana, whereas in Ethiopia food security was regarded as the most crucial issue.

The November 1996 Council Resolution on Human and Social Development described in Chapter 2 also made important statements on poverty reduction. Further details of European Community support are given in Chapter 33 on financing sustainable development.



Chapter 4

Changing production and consumption patterns

Changing production and consumption and patterns is a key factor in achieving sustainable development. Recognizing this, the European Community has followed the two-pronged approach advocated in Agenda 21 of identifying unsustainable patterns of production and consumption and developing strategies to change those patterns. The Community's focus has been on policies and actions to improve the environmental performance of five key target sectors (industry, energy, transport, agriculture, tourism), on broadening the range of instruments, including economic instruments, used to promote changes in behaviour, and in raising awareness among consumers. The European Commission's proposal for the Decision on the Review of the Fifth Environmental Action Programme, currently being considered by the Council and the European Parliament, identifies sustainable production and consumption patterns as one of the key areas to which greater attention will have to be paid in the medium term. This proposal requests the Community to further develop instruments and actions to enhance innovation in industry in relation to sustainable development and to promote changes in awareness and behaviour by industry and consumers with a view to moving towards more sustainable patterns of production and consumption. The proposal lays particular stress on the development of an integrated life-cycle oriented product policy by the European Community which sets out to prevent or reduce pollution caused by products.

The European Commission's General Consultative Forum on the Environment, an advisory body described in Chapter 23, produced an opinion for the

Commission in 1996 which identified crucial elements and principles in relation to sustainable production, sustainable consumption and the role of policy-makers in Europe. Policy-makers are encouraged to:

- set long-term targets;
- involve all partners;
- support basic research aimed at developing less energy and material-intensive production processes and consumption patterns;
- give greater priority to information and especially to spreading success stories;
- broaden the range of instruments used with the aim of getting prices right, bringing emissions down and reducing resource use.

The European Union already has a number of important tools aimed at making production more sustainable. The voluntary Eco-Management and Audit Scheme (EMAS), which came into effect in 1995, is an important tool which will be further built upon. Its fundamental aim is to encourage the adoption of management systems which look for continuing improvement and it works by certifying companies meeting the relevant criteria after systematic, objective and periodic evaluation. Participants are required to prepare an environmental statement giving concise and comprehensible information to the public concerning their activities and environmental performance. EMAS has been very successful with around 500 industrial sites now registered, and 155 environmental verifiers now accredited. The industrial coverage is well balanced, with registrations in 26 of the 30 industrial sectors which determine the scope of EMAS, though progress has not been evenly spread around the Union.

Legislation on integrated pollution and prevention control and on waste is targeted at changing patterns of production to minimize resource use, emissions and waste. The Fourth Research Framework Programme is helping to develop clean technology, often in collaboration with industry, and supports other relevant research. The European Commission has undertaken several initiatives, in close partnership with other organizations, aimed at improving the diffusion of environmental best practices in industry. The establishment of a European Integrated Pollution Prevention and Control Bureau (EIPPCB) at the Institute for Prospective Technological Studies of the Joint Research Centre (JRC) provides access to integrated information on best available techniques for environmental control in major industrial centres.

In early 1997 the European Commission issued a policy paper on the use of taxes and charges for environmental purposes which examines the scope for Member States to use fiscal instruments which are compatible with other European Community legislation, for example on the internal market.

In terms of addressing demand side issues, one of the European Community's tools for providing information to consumers on the environmental performance of products is the Eco-Label Award Scheme which promotes products which have a reduced environmental impact over their entire life cycle. Much work has been done on establishing criteria for eco-labels which by early 1997 had been agreed for more than 12 product groups (such as washing machines, indoor paints and varnishes, and paper kitchen rolls). Criteria cover the general characteristics of the product or technology (e.g. energy use, recyclability, impact), its emissions into the environment and the use of raw materials. Over 100 products had received eco-labels by early 1997; a rate of progress in line with comparable schemes, but one which is hoped will speed up in the near future.

The European Commission committed itself in 1996 to making the promotion of sustainable consumption patterns one of the priorities of its consumer policy for the period 1996-98. A coherent plan of actions to promote sustainable consumption patterns throughout the European Union is being developed, including campaigns to improve public awareness of sustainable consumption issues in southern Europe, dissemination of best practice in NGO activities to promote sustainable consumption, and initiatives to verify and improve the quality of green product information.

Environmental initiatives such as those promoting energy efficiency or car free cities have also raised public awareness and influenced opinion.

Work intended to influence patterns of consumption and production is described in many of the other chapters of this report.



Chapter 5

Demographic dynamics and sustainability

Environment, development and population are inextricably linked. Agenda 21 highlighted the importance of improving and disseminating knowledge about the relationship between these factors and also the need to formulate policies and programmes to take account of demographic trends. While European Community action on population issues is concentrated on developing countries, the Union is fully conscious that its very high per capita levels of production and consumption means that European population trends are also of great importance.

The European Union adopted a Council Resolution on Family Planning in Population Policies in Developing Countries in December 1992 in which it specifically took account of Agenda 21.

The Union supports the integrated approach taken at the 1994 Conference on Population and Development which stressed four critical areas — education (particularly of women), reduction of infant mortality, reinforcement of women's rights and the extension of health services. The European Community helps developing countries to implement the Cairo Programme of Action through social development programmes and projects. In particular, the Community has chosen to focus on the improvement of the status of women through education, and on the improvement of reproductive health services. Working in coordination with Member States, development cooperation partners, and international

institutions such as the World Bank, the European Community assists with the definition and implementation of effective population strategies.

As a result of the Cairo Conference both the European Commission and the Member States have increased their financial support for population activities. After Cairo, the European Commission set itself the target of spending ECU 300 million on development aid in the area of population and reproductive health by the year 2000. In 1995 the European Commission committed some ECU 45 million to this sector, but by 1996 the target for 2000 had already been reached, with commitments of ECU 230 million in Asia alone and further sums for other regions. Projects included a ECU 200 million grant for a major initiative by the Government of India to improve the country's Family Welfare Sector with the aim of delivering quality reproductive health services to the population, using policy approaches recommended by the Cairo Conference. In February 1997 the European Commission announced a ECU 25 million four-year programme to improve reproductive health care in Asian countries (Cambodia, the Lao Peoples' Democratic Republic, Nepal and Pakistan), to be implemented by the UN Population Fund (UNFPA) and executed by a number of European and local NGOs.

Work is in progress on a new Council Regulation on Aid for Population Policies and Programmes in Developing Countries. This will stress that the priority objectives for the European Community in the area of population and reproductive health are:

- enabling women, men and adolescents to make a free and informed choice about the number and spacing of their children;
- contributing to the creation of a socio-cultural, economic and educational environment conducive to the full exercise of that choice, especially for women and adolescents, and in particular through the condemnation and eradication of all forms of sexual violence, mutilation and abuse;
- helping to develop or reform health systems in order to improve the accessibility and quality of reproductive health care for women and men including adolescents, thereby appreciably reducing the health risks to women and children.



Chapter 6

Protecting and promoting human health

There is a clear relationship between health and development. Agenda 21 acknowledged that the primary health needs of the world need to be addressed if sustainable development and primary environmental care are to be achieved.

Action on environment and health in the European Union

Development and urbanization have led to both greater numbers and concentrations of pollutants and a greater number of people exposed to them. By trying to control pollution and improve hygiene and living and working conditions, improvements in the state of health of the Community population have been achieved. However, diseases which are caused or aggravated by an interaction between environmental pollution, genetic disposition and lifestyle are causing concern throughout Europe. In particular, there has been a rise in the prevalence of respiratory diseases and allergies.

The operation of health care within the Union is essentially a matter for individual Member States whose health systems vary considerably in their organization, management and finance. However, the European Community has an important role to play in public health, particularly in respect of health protection and promotion, and in the prevention of diseases. A number of actions and programmes have been undertaken focusing for example on cancer, AIDS and communicable diseases. Spending under the Structural Funds on the

provision of water and sanitation services which is described in Chapter 18 has also contributed to public health.

In order to investigate the interaction between environmental factors, genetics and lifestyle, the European Commission has initiated a number of research activities under the Biomed and the Environment and Climate components of the Community's Fourth Research Framework Programme. Moreover, in cooperation with the European Regional Office of WHO and the European Science Foundation, a joint research initiative on environmental health research needs was launched in 1994 as agreed in the Declaration of European Ministers of Environment and Health in Helsinki.

Action on health in developing countries

The European Development Fund (EDF) under the Lomé Convention provides funds for health projects in African, Caribbean and Pacific countries. Since 1992, aid for the health sector has grown markedly in importance in EDF operations. A start has also been made on reorienting health interventions away from infrastructure development and equipment supply, and towards the wider definition and implementation of health policies. The emphasis is now on promoting basic health care, rehabilitation programmes in countries facing pre- and post-conflict situations, developing regional capacities for training health and research staff, working in the family planning field, and helping ACP countries define and implement structural and multi-sectoral responses to HIV-AIDS. Much of this work has been against a backdrop of rapid deterioration in health systems due to the crisis in public budgets, the serious threats posed by the spread of diseases such as sexually transmitted diseases and AIDS, and unplanned urbanization. Funds allocated to the health sector have increased from ECU 160 million under Lomé II to ECU 690 million for the first five years of Lomé IV (1990-95).

The Commission considers health and reproductive health as key sectors of its development cooperation aid, and is involved in these sectors at both national and regional levels. Several examples of reproductive health projects are included in Chapter 5.

In Bangladesh two projects have been under way since 1993, addressing primary health care development and contraceptive supplies. In 1995, a project 'Women's Health and Safe Motherhood' (ECU 17 million) was developed in the Philippines aiming at improving the delivery of services in the poorest areas of the country.

The Community's support to the health sector in Latin America is increasing and about 9% of project funding under the 1996 aid budget for cooperation with Latin America related to health. During 1996 a project 'Latin America against Cancer' was launched in 18 countries in the region, concentrating on prevention through promotion of a healthy lifestyle.

Health projects in the Mediterranean are being designed as integrated actions that improve the status of women and which target youth as a special group. Mediterranean health partners have spelled out the need for support to activities in the health sector and agreed to concentrate on awareness-building, information and prevention, the development of services, training of personnel and cooperation in the event of natural disasters. Support of ECU 150 million is being provided for a national health reform programme in Egypt, and ECU 20 million has been given to a similar programme in Morocco. In both cases the Community is working with the World Bank.

The European Union's intervention in the field of HIV-AIDS covers more than 80 developing countries, and a total of ECU 30 million was committed in 1995/96 under a specific AIDS budget to support interventions at international, regional and national level for developing countries. This finances projects such as one to improve Benin's health system and prevent the spread of AIDS through blood transfusions.

Health projects have also been one of the main destinations for counterpart funds in local currency generated by European Community aid for structural adjustment — almost 75% of counterpart funds are allocated to social provision, and in particular health. Much of the health work is done in partnership with NGOs. For example an ECU 194 000 family planning project in Bangladesh offers health centres for women, providing consultations on health, hygiene, nutrition and family planning.

Health research for development

The importance of health research for development has long been recognized. Since 1983 the European Community has supported collaborative health projects between European and developing country scientists on the predominant disease problems of those countries, some of which are also problems within Europe (for example AIDS or tuberculosis). Research is focused on the biology of these diseases and the development of tools for their prevention and control, including diagnostics, drugs and vaccines. Support is also given for research into reproductive and occupational health.

Increasing attention is being given to research on health systems which targets the impact of health systems delivery, policy formulation, the coverage of vulnerable groups, as well as the quality, acceptability, relevance, methodology and affordability of health interventions. Health systems research has increased in importance at a time when the health sector in many developing countries and in European Member States is undergoing a period of reform. The research uses the abilities of European and developing country scientists, thereby ensuring Europe maintains capacity in these important areas and helping to build capacity in developing countries.

Action on health in economies in transition

The PHARE Programme which provides assistance to countries in eastern and central Europe includes health under its support for the social sector. The focus is on disease prevention, health services reorganization and financing, training of health personnel and pharmaceutical policy. Multi-country programmes include the ECU 12 million 'Fight against Drugs' programme, launched in 1992 with the objective of helping to control the illegal circulation of drugs.



Chapter 7

Promoting sustainable human settlement development

The overall objective agreed in Chapter 7 of Agenda 21 was the improvement of the social, economic and environmental quality of human settlements and of the living and working environments of all people, in particular the urban and rural poor. This was facilitated by the identification of eight programme areas: adequate shelter for all; improving human settlement management; promoting sustainable land-use planning and management; promoting the integrated provision of environmental infrastructure: water, sanitation, drainage and solid waste management; promoting sustainable energy and transport systems in human settlements; promoting human settlement planning and management in disaster prone areas; promoting sustainable construction industry activities; promoting human resource development; and capacity-building for human settlement development.

Many of these programme areas were further developed in the Habitat II Agenda adopted at the Istanbul Conference in July 1996, which had as its twin themes sustainable human settlements and adequate shelter for all. The European Community participated actively in the Habitat II Conference.

Urban policy in the European Union

The European Union is the most urbanized region in the world with around 70% of its population living in towns and cities. Urban policy is primarily a matter

for the Member States. The Community has, however, recognized that the quality of life, particularly in urban areas, is closely linked to environmental sustainability. There is substantial Community policy and legislation on matters affecting particular aspects of human settlements such as waste, noise, water, air pollution, energy and transport.

Explicit recognition of the urban dimension as a cross-cutting theme within European Community policies is relatively recent. The 1990 Green Paper on the urban environment made an important step forward in linking environmental sustainability and the quality of urban life.

In 1993 the Urban Environment Expert Group, together with the European Commission, launched the Sustainable Cities project. Its main aims were to promote new ideas on European urban sustainability and to foster the exchange of experience and good practice. Since that time, the group has provided a number of policy reports and recommendations, culminating in the Sustainable Cities Report published in 1996. This report is concerned with identifying the principles of sustainable development at local level and the mechanisms needed to pursue it, not only in cities, but at all levels of the urban settlement hierarchy. Also in 1996 a pilot version of a European good practice information service on sustainable cities was launched on the Internet.

As a result of the Aalborg Conference held in 1994, which was attended by over 600 representatives from local authorities and other interested parties, the Sustainable Cities Campaign was launched to assist local authorities in moving forward together on sustainability in a process of learning from experience, and encouraging each other to establish long-term plans for sustainable development.

The campaign has been successful in raising awareness. From an initial 80 signatories at Aalborg, by early 1997 about 300 cities and towns had signed the Aalborg Charter of European Cities and Towns Towards Sustainability. The European Community has given financial support to the five major networks of local authorities which promote the campaign. They are the United Towns Organization; the World Health Organization Healthy Cities Project, the International Council for Local Environment Initiatives (ICLEI), the Council for European Municipalities and Regions (CEMR) and Eurocities. The work of the campaign provides a link between the policy work of the Urban Environment Expert Group and the practical efforts of local governments.

The Second European Conference on Sustainable Cities and Towns held in Lisbon in October 1996 resulted in the endorsement of the Lisbon Action Plan which provides practical guidance to local authorities in implementing the commitments of the Aalborg Charter.

Community funding for urban issues in Europe

Not all cities in the European Union have the same capacity to implement policies aimed at providing the conditions for realizing high quality of life standards. For this reason, the Structural Funds and the Cohesion Fund provide funding for projects in urban areas which are located in the less developed economies of the Union. National and regional economies which have a relatively low income per capita GDP compared to the EU average or which experience structural problems due to a decline of industrial employment are eligible for financial assistance. This assistance is mostly given in the framework of development programmes that reflect an integrated approach. The programmes and projects that are financed in urban areas relate to various aspects including urban transport systems, the creation of a favourable business environment, local economic development initiatives, training of the work force and of the unemployed, transfer of technologies, the upgrading of basic infrastructure and the protection of the physical and natural environment. All these actions contribute to the enhancement of the social, economic and environmental performance of urban areas in less developed regions.

There is an increasing polarization in social and geographical terms in western European cities. A structural impoverishment of certain urban neighbourhoods is taking place, which leads to the undesirable outcome of geographical segregation between different groups in the urban society. Inward migration of low income groups from outside the European Union and structural unemployment due to the transformation of the economy are two important causal factors. In order to address this problem the European Commission has launched the programme URBAN. A total budget of almost ECU 860 million will be allocated during the period 1995-99. The main purpose of the programme is to break through the vicious circle of segregation and reinsert the deprived areas into the mainstream urban society and economy. More than 100 cities are to receive financial support in the framework of this programme. The URBAN initiative aims at stimulating national and local authorities to devote specific attention to problems of education, training, economic development, environmental degradation and lack of infrastructure and amenities in such deprived areas. The programme wants to work as a catalyst towards private investment in productive activities. Its emphasis on the economic aspects of urban regeneration distinguishes it from the traditional approach of 'social assistance' to the urban poor.

The URBAN initiative is reinforced by social policy programmes against poverty and social exclusion which are set explicitly in an urban context. The Horizon community initiative aims at social integration (targeting its measures towards handicapped people, the disadvantaged and immigrants). The Employment-Integra Community initiative promotes the provision of training to vulnerable groups on the labour market, which are often concentrated in deprived urban neighbourhoods.

In 1990 the Commission started a small scheme in response to the demand from cities for help in fostering cooperation and the exchange of information. Networks linking cities wishing to cooperate on particular issues have been funded and have promoted the exchange of experience in the fields of land-use management, inner city deprivation, environment, energy management, urban traffic, public information and participation. Assistance has also been given to cities to cooperate with their counterparts in central and eastern Europe (the ECOS programme) and the southern Mediterranean area (MED-URBS programme).

Urban environmental problems are also addressed through Community action under specific research programmes such as Thermie (energy saving and rational use of energy), DRIVE (transport telematics), Sprint (innovation and technology transfer), and environmental research.

Urban issues and development cooperation

The challenges of urbanization have only been recognized relatively recently in African, Caribbean and Pacific (ACP) countries which are members of the Lomé Convention. This explains why programmes and projects in urbanized zones financed under the European Development Fund (EDF) have remained relatively limited. In all about ECU 1 000 million was provided over a 35-year period for projects mainly located in capital cities. Approximately 70% was spent on infrastructure (water networks, improvement of sanitary conditions, urban roads, electricity), 20% on equipment for health and education and about 10% on assistance to small and medium enterprises, crafts, trade and services.

Recent rapid urbanization has led the governments of the ACP countries to give a greater priority to actions in urban areas. Today, the European Community is able to support more structured programmes, such as a project promoting the development of coastal communities in Côte d'Ivoire. This project was launched at the end of 1992 and concerns 16 towns with a population varying from 4 000 to 90 000. Its main objectives are the improvement of urban conditions, the strengthening of economic activity and institutional capacity building. Effective implementation has been helped by reforms adopted in Côte d'Ivoire which have devolved power to local communities.

An increasing number of development projects in the field of urban environment in Latin America, Asia and the Mediterranean have been financed by the European Community in recent years. A recent evaluation on the environmental aspects of Community Development Cooperation found that, between 1990 and 1995, ECU 27 million were committed for projects

in the field of urban environment, mainly in waste management and sewage treatment and sanitation.

A considerable share of these projects were financed from a special budget line on environment in developing countries which finances innovative pilot projects with a large potential for multiplication. These projects reflect priorities laid down in the Habitat Agenda, particularly the involvement of civil society in the preparation and implementation of actions. Projects reflect an approach based on the exchange of appropriate technologies and a commitment to income-generating activities, and take care to protect natural resources and create green spaces. For example, the European Community is supporting a pilot programme (*Programme d'économie environnementale urbaine et populaire*) in marginal urban communities, which aims at encouraging exchange of experience, know-how and technology between south-south partners, with a view to generating income. Under this programme, concrete projects on waste management, sanitation and recycling are implemented in five cities in several different regions. The experiences made are then analysed and the results disseminated widely.

In Asia, the problem of air pollution in urban areas is being assessed through a study into the level of pollution generated by burning biomass fuels among low-income homes in two Asian cities and evaluating the prevalence and incidence of acute respiratory illness among the infants exposed to fumes. This study should pave the way for specific projects. Many projects deal with urban waste which is the subject of Chapter 21.

Furthermore, there are regionally-oriented urban programmes, such as MED-URBS for the Mediterranean, URB-AL for Latin America and the recently adopted Asia-URBS (ECU 25 million for 1996-98). These programmes focus on networking and exchange of experience and know-how, between towns and local authorities in Europe and their counterparts in the given region.



Chapter 8

Integrating environment and development in decision-making

From its inception, a major plank of *Towards sustainability: a European Community programme of policy and action in relation to the environment and sustainable development* (the Fifth Environmental Action Programme) was to integrate the environment into policy and practice in five key areas (referred to as 'target sectors'): industry, transport, energy, agriculture and tourism. The Union realized that if environmental considerations could be built into policy development and decision-making from the beginning, this would help to prevent environmental problems from occurring.

The 1995 Review of the programme showed that integration of environmental considerations into the different target sectors had made progress but at varying speeds. In spite of the recession, encouraging progress had been made by industry. In particular, as explained in Chapter 4, the European Community has introduced the voluntary Environmental Management and Audit Scheme (EMAS) and has promoted environmental labelling as well as an Integrated approach to Pollution Prevention and Control (IPPC).

The Review considered that integration had proved most difficult in the transport sector not least because vehicle traffic growth has offset many of the environmental gains in per kilometre emissions. In the energy sector too, new ideas and solutions are needed to speed up progress.

The Review concluded that the reform of the common agricultural policy (CAP) in 1992 had introduced certain new instruments which took better account of the

environment but that environmental concerns had not been systematically integrated into the common agricultural policy. Equally the Review recorded some progress in the tourism sector but concluded that measures and instruments aimed at integration had not yet been thoroughly implemented.

The Action Plan proposed by the European Commission in 1996 in the light of the Review aims to improve integration in all the target sectors by broadening the range of instruments used, better implementation and enforcement of Community legislation and increasing awareness and the provision of information. (See the box on page 9)

The European Commission has implemented a series of internal measures intended to ensure the integration of environmental considerations in its proposals in other areas of Community policy-making. All European Commission services have designated environment integration correspondents and some services have created environment units and/or developed specific activities and work programmes related to environmental issues. Internal methodologies, in particular for environmental assessments, are being developed. The European Commission's Work Programme indicates those proposals which are likely to have an environmental impact, and provides for annual reports on progress in integrating environmental considerations into other policies. Progress has varied according to sectors but the messages of the Fifth Environmental Action Programme still have to be further integrated into European Commission operations.

Environmental Impact Assessment (EIA) plays an important role in European Community development cooperation. Procedures are in place to ensure that the environmental impacts of all proposed projects are assessed in the necessary detail. Work is now being initiated on how to extend the use of the EIA tool to cover not only projects, but also plans and programmes.

Full integration will, by its nature, require an overall change in attitude. This can only be achieved by a commitment over time to supportive education and training. An integration training programme has recently been put into place within the European Commission's environment service.



SECTION 2

**Conservation
and management
of resources
for development**



Chapter 9

Protection of the atmosphere

Agenda 21 recognized that protection of the atmosphere is a broad and multi-dimensional endeavour. However, four programme areas — the improvement of the scientific basis for decision-making; the promotion of sustainable development particularly in the areas of energy, transport and industry; the prevention of stratospheric ozone depletion and the problems of transboundary atmospheric pollution — were highlighted as requiring priority action. Of course the Rio Conference also reached agreement on the UN Framework Convention on Climate Change.

The European Union considers atmospheric protection to be a key environmental theme which will dominate policy-thinking and making in the next century. Within the Union significant action has already been taken and in some areas has been highly successful. However some worrying trends have been identified, particularly in the transport sector. There have also been difficulties in implementing reforms through pricing mechanisms. Finally, more and better data is required to assess current levels of pollutants and the effectiveness of preventative action. The table at the end of this chapter summarizes both the long and medium-term goals that have been set by the European Community, the progress that has been made to date and the outlook for the future.

The Community and the UN Framework Convention on Climate Change (UNFCC)

Both the Member States and the European Community are Parties to the UN Framework Convention on Climate Change and the Union as a whole has played an active role in its development.

As originally agreed in 1992 the Convention contains specific commitments only for the period up until 2000. The European Community and the Member States agreed to stabilize carbon dioxide (CO₂) emissions at 1990 levels by 2000 and adopted a strategy to reach that objective. The strategy rested on four pillars: energy conservation and energy technology programmes; national policies and measures complementing Community level action; the establishment of a monitoring mechanism for CO₂ and other greenhouse gases which reports annually on the progress made towards the Union's stabilization commitment; and fiscal measures. The first three of these elements are under implementation and current evaluations show that the Union is on course to achieve the stabilization target by the end of the century.

The European Union has taken the lead in pressing for further proposals under the UNFCCC for the period beyond 2000. It was instrumental in getting agreement to the 1995 Berlin Mandate adopted by the First Conference of the Parties to the Convention. This established a process whereby the developed countries committed themselves both to limit and reduce their greenhouse gas emissions by setting concrete objectives for themselves for the years 2005, 2010 and 2020, and to identify and agree policies and measures to achieve these objectives.

The Union is working hard to ensure that negotiations under the Berlin Mandate lead to the adoption of a binding protocol or other legal instrument at the Third Conference of the Parties to be concluded by December 1997. To that end the Union has conducted dialogue with all important partners and submitted a proposal for a protocol which sets out a formula for common and coordinated policies and measures as well as a series of papers on possible action within 11 areas of economic activity.

Moreover on 3 March 1997, the Council of Ministers agreed to a European Union negotiating position in the international negotiations for a protocol, which includes a quantified reduction target of 15% for the emissions of the three main greenhouse gases (carbon dioxide, methane, and nitrous oxide) for industrialized countries by 2010 (compared to 1990), and a list of policies and measures to be developed for reaching this target.

Research into the atmosphere

The European Community recognizes and actively participates in the valuable work of the Intergovernmental Panel on Climate Change (IPCC) in establishing international consensus on the scientific, technical and socio-economic issues related to climate change.

Environmental research on climate change and atmospheric pollution has long been part of the Community's own activity. The Fourth Research Framework Programme includes a specific programme on environment and climate, worth

ECU 907 million, which provides resources for work on investigating levels and trends in greenhouse gas emissions as well as supporting research on the socioeconomic and ecological impacts of climate change. Programmes which cover other issues such as energy, transport and forestry are also of considerable relevance to air quality.

Energy

The need for all energy to be produced and consumed in ways that respect the global atmosphere, the environment and human welfare requires the integration of environmental and energy policies at European Union, national and regional levels. There have long been Community efforts to promote shared responsibility and partnership in the transition to sustainable energy development. The main challenge now facing the Community is to improve the implementation of existing measures and to provide further stimuli for energy efficiency promoting renewable energy sources, the internalization of external costs into energy prices and greater awareness amongst consumers.

The poorer parts of the Community have the lowest per capita consumption, but are relatively inefficient in their use of energy. They have the greatest dependence on external supplies and are less well connected to the major international energy networks. In order to counter these handicaps substantial investment through the Structural Funds has been made in energy infrastructure projects. Between 1989 and 1993 the Community allocated some ECU 1 712 million from the Structural Funds for energy projects in the Objective 1 regions. For the period 1994-99 those regions are expected to devote about ECU 2 700 million or some 2.7% of their total Structural Fund allocation to energy infrastructure projects. The European Investment Bank also lends heavily for energy projects and provided some ECU 3 670 million for energy infrastructure projects in the Union in 1994 and 1995 alone. Significant support is also being given to promoting energy efficient investments in industry, particularly in small and medium-sized enterprises (SMEs), in the weaker regions of the Union as well as to encourage the use of renewable energy sources.

In addition to its involvement in major infrastructure projects, the European Community supports a number of activities specifically to promote energy efficiency and the use of renewable sources. The Joule-Thermie programme finances research and development and demonstration projects involving new technologies and processes which produce or save energy and includes a significant dissemination element. SAVE I and II are complementary programmes which promote non-technological ways of promoting environmentally friendly national energy use. Altener encourages the use of renewable energy. Information on all these programmes is made widely available throughout the

European Union through nearly 80 regional and local energy agencies set up with funding from the Community.

Agenda 21 recognized that economic instruments can be a more efficient policy means to achieve environmental improvements than traditional regulatory instruments. The European Commission has proposed a carbon/energy tax aimed at stimulating a more efficient use of energy and a switch to less carbon intensive fuels. It is thought that there would also be additional 'no regrets' benefits such as the reduction of other pollutants and the improvement of energy security due to conservation and technological innovation. However, the proposal did not receive the necessary unanimous approval in the Council. In order to make progress, in March 1997 the European Commission presented a proposal to the Council which sets minimum excise duties on all energy products which could have a favourable impact on reducing CO₂ emissions in the Community.

Energy cooperation with the economies in transition

Energy has been an important component of the Community's partnership with the countries of eastern and central Europe. An ECU 25 million PHARE multi-country programme for the period 1992-94 was aimed at improving energy policy-making, promoting efficiency and conservation measures, tackling supply problems and improving demand management. Projects include a natural gas interconnection study, a clean coal study, and coordination of natural gas strategies in the Baltic states. Another ECU 15 million project in Bulgaria aimed at reducing sulphur dioxide emissions. In 1994 alone PHARE launched energy projects worth nearly ECU 60 million.

The New Independent States (NIS) are amongst the world's most important producers of energy. These countries have large reserves of oil and gas; however, across the NIS the energy sector faces a number of serious problems, not least as a result of inefficiencies in supply and inadequate demand management. For five years TACIS, a European Community initiative for the NIS and Mongolia, has been playing an important role in the sector, transferring know-how and promoting pilot and demonstration projects which are designed for replication. Over 150 TACIS energy projects have been carried out and ECU 228 million was allocated to the energy sector over the period 1991-95. The Tacis programme, in conjunction with the Community's Thermie programme has set up a network of 10 energy centres in the NIS. These are designed to help provide solutions to energy conservation issues affecting local industry in the partner countries, and their activities range from auditing boiler performance at industrial plants to launching consumer and legal information and environmental awareness campaigns.

Energy cooperation with developing countries

The European Community has one modest programme, Synergy, specifically aimed at providing assistance for the definition, formulation and implementation of energy policy in third countries. The programme operates through information dissemination, training, studies and the promotion of networks.

While the development of industry, mines and energy has been one of the objectives of the Lomé Convention since its inception, the ACP countries have not in fact chosen to make energy a major focus of European Development Fund assistance, although the Fund has subsidized substantial European Investment Bank lending for the power sector. One important renewable energy project which did receive significant support from the EDF involved the provision of high quality photovoltaic equipment to nine Sahelian countries for use in areas not connected to the electricity grid.

The European Community has supported the AEEMTRC energy management training and research centre in Jakarta since 1988 and also finances the COGEN programme which aims to accelerate the implementation of proven technologies generating heat or power from wood or agro-industrial residues through partnerships between European and ASEAN companies. In 1996 the Community developed an energy cooperation strategy for Asia which set out three key objectives; strengthening the security of supply in Asia and Europe; participating in Asian energy markets; and protecting the global environment. The priorities for cooperation were defined as modernizing the electricity sector; promoting natural gas; introducing clean coal technologies; encouraging rational energy use; and supplying energy to rural areas by an increased use of new and renewable energy.

The European Community has also developed an energy sector strategy for cooperation with Latin America that concentrates on sectoral policy and notably on market-based reform, institution strengthening and the modernization of the management of energy businesses. The ALURE programme supports this strategy.

For the Mediterranean too an energy sector cooperation strategy was prepared in 1996. This stresses the shared interest in energy supply between the two regions and emphasizes partnership and cooperation on trans-European networks.

The Community's international cooperation programme under the Fourth Research Framework Programme is supporting joint policy research with developing countries in clean and efficient energy systems and looking at the interrelationships with relevant economic sectors, for example agriculture, industry and transport, and with socioeconomic transitions such as growing urbanization.

Transport

Transport policy in Europe

The Community has made some progress towards a less polluting and safer transport system since Rio, but more remains to be done.

Vehicle emissions have been regulated by the Community since 1970, and emissions per vehicle-kilometre have been cut significantly. The latest limit values for air-polluting emissions have come into force for all new vehicles; in 1994 for light-duty commercial vehicles, in 1996 for lorries and buses and in 1997 for passenger cars. In addition, requirements for regular vehicle emission inspection have been extended as from 1997. However, as the 1995 Review of the Fifth Environmental Action Programme confirmed, increasing levels of road traffic have largely offset the gains made per vehicle, and air quality standards are frequently exceeded especially in urban areas in the Union. Against this background, the European Commission carried out a major research programme (the 'Auto-Oil Programme'), in cooperation with automobile manufacturers and the oil industry, to determine by which combination of measures (including both new vehicle and fuel standards and local transport policy measures) air quality standards elaborated by the World Health Organization (WHO) could be met by 2010 at least cost to society. The European Commission made proposals in 1996 for vehicle emission standards and new legislation on fuel quality to be applied in 2000/2005 based on the results of this programme. The proposals are currently being discussed by the Council and the European Parliament.

Road transport is also a major source of CO₂ emissions in the European Union, and a sector where such emissions have grown continuously. Therefore, in early 1997 the European Commission launched a strategy for reducing CO₂ emissions from passenger cars through improved fuel-efficiency. The European Commission is currently discussing with the auto industry an agreement to lower substantially the average fuel consumption of new cars over the next few years. However, it has been recognized that further measures to reduce CO₂ emissions, especially from land and air transport, will still be needed. The growth in transport CO₂ emissions is considered a major challenge in the context of Community policy on climate change.

As part of its strategy to encourage alternatives to the car, the European Commission is working to promote awareness and encourage best practice in urban transport policies by enhancing the exchange of experience between local authorities and practitioners at a European level. The work involves close cooperation with groups of cities, such as the Car-Free Cities Network, and support for demonstration programmes for new technologies. The Community also provides substantial funding for transport research and development through the Fourth Framework Programme.

The European Commission has furthermore launched policy debates with the Member States and other stakeholders on a number of new initiatives which should in the longer term lead to a reduction in the environmental impact of transport. The issues covered include the internalization of the external costs of transport, the revitalization of European railways, urban public transport and future noise policy.

Transport infrastructure in Europe

In the area of transport infrastructure, the European Community and the Member States are working together to develop multi-modal Trans-European Transport Networks (TETNs). Community financial support is being provided through different Funds and particularly through the ECU 16 000 million Cohesion Fund established in 1993 to provide help to the four poorest Member States for the period up to 1999. Approximately half of the Fund will be spent on TETNs and most of the priority projects identified relate to alternatives to road transport. Studies suggest that 60% of the costs of new investments needed to complete the basic TETNs networks will be required for railways, including high speed lines, 5% for inland waterways and 30% for roads. The European Commission is currently starting work on methodologies for assessing the environmental impact of the TETNs.

In addition to the Cohesion Fund, the Structural Funds will contribute very substantially (in excess of ECU 10 000 million) to the construction and improvement of transport infrastructure in the period 1994 to 1999. The European Investment Bank lent a further ECU 12 000 million to such projects in the Community in 1994 and 1995 alone. As a result of the Community support some 17 000 km of roads will be constructed or improved in the Union's four poorest Member States in the decade from 1989. Support is also being given for the construction of metro and light railway systems in Athens and Dublin to ease urban congestion.

In recent years attention has also been paid to improving transport links with the Union's eastern neighbours. Initially projects focused on upgrading major border crossing points to cope with the vast increase in traffic after 1989. In all, projects costing ECU 100 million have been funded under the PHARE programme to develop the transport infrastructure of central and eastern European States as part of the programme's strategic work in the modernization of partner countries' economies.

Community support for transport in developing countries

The first three Lomé Conventions (1975-90) spent about 20% of the programmable aid or ECU 2 500 million in the transport sector. Almost as much, ECU 2 000 million or about 25%, is being disbursed in the first half of the Fourth

Lomé Convention (1990-95). Allocations have risen dramatically for the period 1995-2000, the second half of the Fourth Lomé Convention. Approximately 40% of the national indicative programmes, ECU 2 500 million, are committed to transport infrastructure. This support makes the Community the leading donor to the transport sector, alongside the World Bank, in the Lomé countries.

Such investments need periodic evaluation. An evaluation in 1993 concluded that overall the investments in primary infrastructure were generally of a good quality. But much more needed to be done to match the overall objective of aid and the purpose of transport investments. Furthermore, a sectoral approach had not been adequately applied, and recipient countries had not adequately maintained their infrastructure. The findings of the evaluation were based on an analysis of 200 projects financed by the European Development Fund and visits to 40 projects in 13 countries. Many of these projects formed part of multi-donor transport programmes which included Member States' bilateral support. Overall, the evaluation recommended the development of a sectoral approach which would address the sustainability of the benefits of Community aid and the transport infrastructure networks.

A sectoral approach has been developed. In September 1996, transport sector guidelines entitled *Towards sustainable transport: a sectoral approach in practice* were published. These guidelines define the sectoral approach as matching transport infrastructure to economic and social demands, and providing a framework for sustaining the network and benefits to stakeholders. Implementation of the sectoral approach requires:

- shaping the national transport policy to contribute to economic and social development, fitting transport investments into the macro-economic context, taking account of regional strategies, getting the intermodal balance right including intermediate and non-motorized transport, balancing maintenance and investment, and using the results of research;
- involving all stakeholders, including neighbouring countries, to ensure transport meets demand;
- securing finance for operating and maintaining networks by convincing users to pay and charging realistic prices;
- restructuring and reforming institutions through capacity building, introducing appropriate management systems, commercial attitudes and greater private sector participation;
- building in environmental issues from the start of the planning process, and integrating employment, gender, AIDS and health issues in transport planning;
- improving the effective enforcement of regulations and operational safety.

The guidelines support project cycle management by providing a practical way of applying the sectoral approach and addressing sustainability issues at each stage of the project cycle. Additional tools for developing and monitoring projects are provided. While the guidelines build upon experience in the Lomé countries, they are equally applicable in other regions.

Industry

The Community has adopted an integrated approach to sustainable development in the industrial sector by legislating for Integrated Pollution Prevention and Control (IPPC), and through the Eco-Management and Audit Scheme (EMAS) and Environmental Labelling which are described in Chapter 4. Through this integrated approach, protection of the atmosphere from industrial pollution is treated together with protection of other media.

The aim of the Directive on IPPC, adopted in 1996, is to achieve prevention and control of pollution arising from a wide range of industrial activities, by laying down measures designed to prevent or reduce polluting emissions to air, water and land. The Directive sets forth general principles governing the basic obligations of the operator. Central to these is the obligation to apply the best available techniques (BAT) to prevent pollution. Operators are also obliged to avoid as far as possible the production of waste, to use energy efficiently, to prevent accidents and limit their consequences, and to ensure the return of the site of operation to a satisfactory state after the cessation of activities. These obligations are enforced through an integrated permitting procedure which includes the setting of emission limit values based on BAT. In addition, the European Commission is organizing an information exchange on BAT between Member States and industry to include all the industrial sectors covered by the Directive.

Raising the environmental awareness of small and medium-sized enterprises (SMEs) and responding to their need for advice requires particular efforts and the European Community is responding to the challenge through the provision of expert consultancy services, training programmes and financial assistance. An environmental advisory role has been added to the tasks of the Euro Info-Centres (EICs). Many of the 220 EICs now have staff trained by the Commission to deal with environmental questions and they all have available, in all languages, the *Eco Management Guide*, which enables and encourages SMEs to examine and improve their environmental performance. It is intended that the self-analysis undertaken in this way will lead SMEs towards seeking full EMAS certification, since ultimately widespread EMAS registration will provide the best momentum towards true integration of environmental considerations into the heart of business and industrial policies.

Recognizing the difficulties that SMEs have in understanding EMAS, the Commission is funding a pilot action under the terms of the Euromanagement scheme. The objective is to develop a European-wide EMAS methodology to assist industrial SMEs, particularly the smaller ones, by identifying and analysing the weaknesses, opportunities and adjustment needs for SMEs. A report, expected at the end of 1997, will cover the structural and other measures needed at a regional, national and European level to facilitate the participation of SMEs in EMAS including the need for any revision to the Regulation.

Considerable support for the introduction of environmentally friendly technology has also been given through the Structural Funds where many programmes concentrate on modernizing industry, particularly through help to SMEs in the Union's poorer regions.

Preventing stratospheric ozone depletion

The European Union has consistently led efforts to implement and strengthen the Montreal Protocol. A 1994 Regulation (3093/94) consolidated existing regulations on the control of all ozone depleting substances (ODSs) and provided for quantitative restrictions on the production and consumption of methyl bromide and the consumption of hydrofluorocarbons (HCFCs). Except for certain essential uses and to meet demand in developing countries, the production and consumption of chlorofluorocarbons (CFCs) has been banned in the European Union since January 1995. The 1994 Regulation is currently being reviewed and strengthened in light of the agreements reached during the 1995 Vienna Meeting of the Parties to the Montreal Protocol, and the increasing development of ozone-benign technologies.

The European Union met its 1996 target for the phasing out CFCs and halons, and is on course to meet the target, for HCFCs under the Montreal Protocol (a cap of 2.8% and phaseout by 2030, with interim reductions of 35% in 2004, 65% in 2010, 90% in 2015 and 99.5% in 2020, the remaining 0.5% to be limited to the servicing of existing refrigeration equipment until 2030, and the stricter European controls mandated by Regulation 3093/94 (a cap of 2.6 %, phaseout in 2015, interim reductions of 35% in 2004, 60% in 2007, 80% in 2010 and 95% in 2013). Attention now needs to be given to tightening controls on HCFCs and methyl bromide in the Montreal Protocol.

Research aimed at monitoring stratospheric ozone and assisting Union action to combat ozone layer depletion is being conducted under the Environment and Climate Research Programme.

As industrialized countries phase out ODSs, progress will rely increasingly on action by developing countries. Here much depends on the European Union and other countries stopping the production and sale of ODSs and increasing the development and accessibility of new technologies. The European Union

considers that it is of utmost importance that both the new and earlier controls agreed under the Montreal Protocol should be adhered to and implemented by all countries. Uncontrolled growth or failure fully to implement the Protocol could undermine the progress made so far.

Transboundary atmospheric pollution

The European Community and all Member States are parties to the UN Economic Commission for Europe's 1979 Convention on Long-Range Transboundary Air Pollution (CLRTAP) and its protocols. The Community has introduced a range of measures to implement its obligations under the Convention to control emissions of sulphur dioxide and nitrogen oxide. Progress towards the targets set in the Fifth Environmental Action Programme have, however, been mixed, as can be seen from the following table.

The European Union is particularly concerned with acidification. On the basis of current data, it is expected that acid deposition levels in 2000 will fall, but in a large number of regions (mainly northern Europe and in the Alpine Region) critical loads will still be exceeded. A 1995 European Commission report analysed the situation and discussed possible future trends until 2010. Following an invitation from the Council, a communication setting out a Community strategy to combat acidification was adopted by the Commission in early 1997 and has been sent to the other European institutions.

The European Community's scheme for the protection of forests against atmospheric pollution is described in Chapter 11.

The European Community is currently setting out its future policy on air quality. Following assessment of the existing Ambient Air Quality Directives, which control the main pollutants, the Environment Council has reached political agreement on a Framework Directive on Ambient Air Quality Assessment and Management. The focus is on the development of effective Union-wide actions and on effective assessment. The work is supported by a research programme looking at the health risks associated with sulphur dioxide, nitrous oxide, carbon monoxide and particulate matter levels in ambient air.

Tropospheric ozone is a problem shared between the European Union Member States. Episodes of ozone concentrations, several times the ambient average, occur every summer over most parts of Europe. Threshold values set for the protection of human health, vegetation and ecosystems are frequently exceeded. Currently all Member States have to comply with the Council Directive on Ambient Air Quality Assessment; a proposal for a daughter Directive for ozone is due to be submitted to the Council in 1998 together with a strategy and proposals for the reduction of ozone pollution. Work is now under way to develop a European Union strategy for the control of the ozone.

Progress towards the 5th Environmental Action Programme goals for the atmosphere

	Goal set	Progress made to date	Outlook for future
Climate change	'no exceeding of natural absorption capacity of planet Earth'		Increased global economic activity, increased contribution from transport sector and limited impact of energy saving and reduction programmes require intensified effort
CO ₂	2000 — stabilize at 1990 levels Progressive reductions at the horizons 2005 and 2010	Stabilizing in EU	Expected to meet target
Methane (CH ₄) Nitrous Oxide (N ₂ O)	1994 — identify and apply controlling measures	Reliable data on methane and N ₂ O not available Delays in adopting strategy	Expected increase in methane emissions
Ozone depletion	'working towards ultimate goal of no emissions of ozone depleting substances'	EU phased out CFCs and halons by 1996	Concern is now whether less-developed countries will be able to reduce consumption of ODSs
HCFCs	1995 — limitation of consumption to 2.6% of 1989 CFC consumption level	On target	Expected target will be achieved
CFCs, carbon tetrachloride, halons, III trichlorethane	Phase out before 1.1.1996 except for some essential uses	Achieved	Achieved
Acidification	'No exceeding of critical loads and levels'		Expected acid deposition levels in 2000 will fall but in northern Europe and Alpine Region critical loads will still be exceeded. Accurate and comparable data must be compiled and made available

	Goal set	Progress made to date	Outlook for future
NO _x	1994 — stabilization at 1990 levels 2000 — 30% reduction on 1990 levels	Substantial increase (5%) in emissions between 1985 and 1990 1994 target reached	Target for 2000 unlikely to be achieved due to expected increase in use of private cars and road transport for freight
SO _x	2000 — 35% reduction on 1985 levels	Achieved in 1994	Reduction of 50% on 1985 levels likely by 2000
NH ₃	Variable targets in accordance with problems identified in regions		
General VOCs	1996 — 10% reduction of man-made emissions on 1990 levels 1999 — 30% reduction on 1990 levels	Data not complete	Mobile sources account for 50% of VOC emissions. Expected increase in use of cars will not facilitate achievement of targets
Dioxins	2005 — 90% reduction on 1985 levels of dioxin emissions of identified sources	Full data not available in all Member States	Studies indicate potential for 80% reduction by 2005. Much rests on reduction of emissions from waste incineration and other combustion processes
Heavy metals	1995 — at least 70% reduction from all pathways of Cd, Hg and Pb emissions	Most North Sea countries achieved 50% reduction	

Table based on results recorded in Progress Report on Fifth Action Programme and 1996 Report to CSD.



Chapter 10

An integrated approach to the planning and management of land resources

An integrated approach to the planning and management of land resources was recognized by Agenda 21 as being necessary if the needs of future generations are to be met in a sustainable manner.

Although 1992 brought land-use planning into the Treaty for the first time, in accordance with the principle of subsidiarity, it remains primarily a matter for Member States. Nevertheless, the Union is increasingly recognizing a European dimension in spatial planning as it affects areas such as transport, energy, communication networks and water management. There has also been a significant increase in cross-border cooperation between Member States. This increasing awareness of the regional, as well as national, importance of spatial planning has resulted in a number of Community initiatives.

Spatial planning

The first Europe-wide attempt at spatial planning was the 1992 Europe 2000 exercise which was followed in 1994 by the European Commission communication 'Europe 2000+: Cooperation for European territorial development'. This examined the trends and challenges in different fields such as:

- the residential mobility and spatial distribution of employment;
- the regional distribution of foreign investment;

- the protection of open spaces and water reserves;
- the regional effects of the trans-European networks;
- the future of urban rural and border areas;
- the spatial planning systems and public financial transfers in the Member States.

It set as its primary goal the achievement of a viable use of territory through sustainable development and made a number of recommendations regarding, in particular, cross-border and transnational cooperation in the field of spatial planning.

A first official draft of the European Spatial Development Perspective (ESDP) is to be presented in June 1997. Its aim is to contribute to the effective implementation of a new spatial development strategy encompassing economic, social, and environmental dimensions. It identifies the wise management and development of the natural and cultural heritage as one of the three spheres of activity, along with a more balanced and polycentric urban system and more equal access to infrastructure and knowledge.

It is agreed that the ESDP document, despite its indicative nature, should lead to tangible results. Therefore, the setting-up of implementation mechanisms is envisaged aiming to mobilize a wide range of actors concerned within the Member States, within the framework of cooperation programmes and at Community level.

Environmental Impact Assessment (EIA) in Europe

EIA is a key instrument in the implementation of environmental policy at both European Union and Member State levels. However, although the 1985 EIA Directive has produced considerable environmental benefits, a 1993 review concluded that the full potential of the EIA system was not being realized.

The European Commission has taken a two-pronged approach to address the issues raised in the review. Proposals have been adopted which will strengthen the 1985 Directive and lead to better integration of environmental considerations into the development consent process. It has also been recognized that the Directive is inherently limited in that it only applies to the project level of decision-making. In December 1996 the European Commission therefore adopted a proposal for a Strategic Environmental Assessment Directive which will require an environmental assessment to be carried out at the strategic level before land-use plans and programmes are adopted. In particular this will allow alternative solutions to be properly assessed. It will also allow the cumulative and synergistic environmental impact of small but numerous projects to be taken into account.

Major accident hazards

Land-use planning in the context of siting of hazardous establishments has been a high profile matter of concern following accidents such as Bhopal, India (1984) where the consequences were made very much worse by the close proximity of residential developments. In this respect, Council Directive 96/82/EC of 9 December 1996 on the control of major accident hazards involving dangerous substances (the 'Seveso II' Directive) includes the integration of industrial risk considerations into land-use planning decisions. Member States are required to ensure that their land use and/or other relevant policies take account of the need, in the long term, to maintain appropriate distances between hazardous establishments and residential areas, areas of public use and areas of particular natural sensitivity or interest. The Major Accident Hazards Bureau established at the Environment Institute of the JRC has supported the formulation of the above directive, as well as its modifications and further revision.

Scientific cooperation

In the context of the international cooperation component of the Fourth Research Framework Programme, the European Union is actively promoting joint research activities on the sustainable management of land resources in developing countries and central and eastern European countries, including activities which consider the global change aspects of land use.



Chapter 11

Combating deforestation

Agenda 21 identified four programme areas on which action should be taken to combat deforestation. The Community has ensured that these goals are part of both its European and international forest strategies.

Forests in Europe

The overall European strategy

The forest resources of the European Union, which cover around 127.8 million hectares, provide a major source of ecological, environmental and socio-economic benefits. There has been a 10% increase in forest cover between 1960 and 1990. Member States are strongly committed to the conservation and sustainable management of the forest heritage of the European Union. The subsidiarity principle means Community action is geared towards guiding and supplementing the work of local, regional and national actors. Nevertheless, the Community's common agricultural policy (CAP), and environmental and regional development policies have an important influence on the forestry sector.

Since 1979 the Community has been continuously developing its activities in the forest sector. Forestry is currently perceived as a major component of rural development with growing appreciation of its multiple roles and uses. National forest policies and forest management take into account the fragility and

richness of forest ecosystems and strive to enhance the multiple socio-economic and environmental functions of forests.

The European Community's forest strategy has six main objectives:

- to promote the full involvement of the forest sector in land-use planning, and so to contribute to the future development of rural areas;
- to provide a measure of security of wood supply to the Union;
- to contribute to the conservation and improvement of the environment;
- to safeguard the forest heritage and help protect it against disease, fire and other threats;
- to give the forest sector dynamism to fulfil its diverse functions;
- to extend the recreational role of forests.

Conferences on the Protection of Forests in Europe (1990 and 1993)

The European Community is a signatory to the resolutions adopted at the Ministerial Conferences on the Protection of Forests in Europe at Strasbourg (1990) and Helsinki (1993). In 1993, general guidelines for the sustainable management of forests and the conservation of their biological diversity were adopted as a part of this process. A set of criteria and indicators have also been agreed upon. The European Commission actively supports the pan-European process, notably by organizing round table meetings and encouraging coordination with the Member States. The Community's activities in the forest sector, in particular the afforestation and forest development schemes as well as measures in the field of forest protection, conservation of genetic resources and forest related research, all contribute to the implementation of the Strasbourg and Helsinki resolutions.

Forests and the common agricultural policy (CAP)

The 1992 CAP reform provided measures for afforestation of agricultural land and the improvement of forests within agricultural holdings. The scheme is designed to improve forest resources, countryside management, and the environment, by establishing and developing forests in agricultural areas. For the period 1994 to 1997 national plans have been approved for 650 000 hectares of new forests and the rehabilitation of a further 130 000 hectares of existing woodland with the Community contributing 50 to 75% of project costs. The measures include:

- payments to cover the costs of planting trees on farm land;

- aid for plantation maintenance; granted for five years and variable depending on tree type;
- yearly payments to compensate for income loss during tree growth;
- aid for improving areas planted with trees, e.g. for the provision of forest roads and wind breaks.

Besides the afforestation activities prompted by the CAP reform, a wide range of initiatives for the development and optimal utilization of woodlands are also taken through Community regional and rural development programmes financed, in the main, through the Structural Funds. Some ECU 104 million is expected to be committed from the Funds to forestry development in vulnerable rural areas (Objective 5b regions) in the period 1994 to 1999 and further sums will be spent in other regions.

Forestry research and monitoring

Research on forestry and forest products has been continuously supported by the European Community since 1989 through a series of specific programmes in the Second, Third and Fourth Research Framework Programmes. Within the ongoing specific programme, FAIR, the notion of the 'forestry-wood' chain has been introduced encompassing the entire spectrum of forestry activities, from sustainable forestry production through clean transformation processes up to quality and market requirements for end products. Particular emphasis is placed on strengthening the scientific base concerning the diversification and re-orientation of production as well as the development of environmentally friendly, market-led, renewable products. In a multi-functional forest management context, research efforts are focused on the development of analysis methods and indicators for the sustainable and multi-purpose management of forests, the functioning of forest ecosystems, the optimization of agro-forestry systems, the impact of natural hazards and human activities, the causes of forest die-back, and the protection of forests. Research on forest fires is supported by the Environment and Climate Programme.

In 1987, the European Community started a large-scale monitoring programme to provide regular information on the general condition of forests and the effects of atmospheric pollution. The programme was reinforced in 1992 by the establishment of a network of permanent plots for the intensive monitoring of forest ecosystems. The scheme is carried out in close cooperation with the International Cooperative Programme on the Evaluation and Monitoring of Air Pollution Effects on Forests under the Convention on Long Range Transboundary Air Pollution. Yearly reports on the condition of forests in Europe are published by the European Commission in cooperation with the UNECE.

Protection against fires

A 1986 Regulation aims to protect forests by preventing fires which are a particular problem for the southern European Member States. The scheme, which was strengthened in 1992 and extended in 1997, contains measures to identify and combat the causes of fires. The Regulation also covers actions to improve fire prevention systems, such as new protective infrastructure including forest roads, water supply points and fire breaks, as well as improved monitoring systems, the training of specialized personnel and pilot projects for new techniques. The Space Applications Institute of the JRC has also worked on the development of remote sensing based methods for the monitoring of vegetation fires and the analysis of distribution patterns in relation to atmospheric chemistry, climate change and environmental management.

Future action

Given the diversity and complexity of forests and forest problems, the European Parliament has recently launched an initiative to further develop the Community's strategy in the course of the next two years.

European Community action in developing countries and economies in transition

One of the priorities of the European Union is to reverse the accelerating trend towards the loss of tropical forests and to promote the sustainable use of tropical forest resources.

At the policy level, the European Community has highlighted sustainable forest management in its agreements with developing countries. The Fourth Lomé Convention identified deforestation as a serious problem and a specific Protocol on Sustainable Forest Management was added when the Convention was revised in 1995. The new generation of bilateral protocols and regional cooperation activities with developing countries in Asia and Latin America also make specific reference to sustainable forest management cooperation.

Community financial support for tropical forests averages almost ECU 120 million per year, the largest sector of primary environmental projects. Slightly less than half of that amount comes from a specific budget line for tropical forests, created at the initiative of the European Parliament in 1991; the rest is part of its regular aid programmes to different regions.

A wide variety of forest-related projects receive support. For example the Central African Programme for the Conservation and Sustainable Use of Forest Ecosystems (Ecofac) promotes a regional network of protected areas where the needs of local populations are reconciled with forest ecosystem conservation.

The Community is a major contributor (currently contributing ECU 57 million) to the Pilot Programme for the Conservation of Brazilian Rainforests initiated by the G7 and implemented in collaboration with the World Bank, to assist the Brazilian Government in the conservation and sustainable management of Amazonia and Mata Atlantica. This is an important example of north-south cooperation on global environmental issues, and one of the most successful efforts to put into practice the principles laid down in UNCED in Rio 1992. India and Indonesia have also benefited from major forest projects. In fact, Indonesia is the largest single recipient of European Community assistance for tropical forests.

Particular emphasis is placed in developing country programmes on the role that civil society and local communities can play in the sustainable management of natural resources and greater importance is now given to small-scale projects by community groups and NGOs. Since 1992 the European Community has supported the European Tropical Forests' Research Network (ETFRN), with a view to facilitating research cooperation. The Community has just published *Guidelines on Tropical Forest Development Cooperation* as a tool to improving the quality of tropical forest projects. In addition, the European Community's Tropical Forest Programme is currently under independent evaluation which will be finalized in 1998.

The JRC, through the TREES (Tropical Ecosystem Environment Observations by Satellites) project, has contributed to the development of techniques for a global tropical forest inventory, the detection and monitoring of the active deforestation areas and the establishment of a comprehensive Tropical Forest Information System (TFIS), able to support the modelling of tropical deforestation dynamics.

Joint research activities on boreal forests with central and eastern European countries have also been promoted. In 1994, under the PHARE programme, a forestry protection project was launched in Poland at a cost of ECU 12 million.

Trade in forest products

Active steps have also been taken to improve market access for processed timber. The European Community Generalized System of Preferences (GSP) is a set of unilateral and non-reciprocal concessions whereby the Community's tariffs are reduced for developing countries in order to encourage their own production and export of goods. The new GSP adopted in 1994 includes a provision whereby additional preferences will be offered to countries that adopt and apply sustainable forest management criteria. The additional preferences are due to be implemented in 1998 and require the Council to adopt the necessary arrangements.

The Community recognizes the need for developing countries to increase the rate of economic return from their forest resources and has funded studies and projects on a number of measures to that end including the certification of sustainably produced timber, environmentally sound harvesting techniques and more efficient processing facilities.

The European Community is a member of the International Tropical Timber Agreement and, after some hesitation about the results of the negotiations which were completed in 1994, decided in 1996 to ratify the new agreement.

Intergovernmental Panel on Forests (IPF)

The European Union was instrumental in the creation by the Commission on Sustainable Development of the Intergovernmental Panel on Forests with a mandate to pursue consensus and coordinated proposals for action to support the management, conservation and sustainable development of forests. The Community, along with Member States, has contributed to the costs of the Panel and supported the participation of representatives from developing countries. The European Commission has also taken part in and financially supported a number of the nationally hosted workshops which have been such an important part of the Panel's work.

The European Union as a whole welcomed the work of the Panel as a contribution to a revitalized international dialogue and a deeper understanding of the issues. The Union worked hard to ensure that the fourth meeting of the Panel was able to adopt a comprehensive report covering all areas of its mandate. The Union welcomes the report and supports the concrete recommendations therein and urges their rapid implementation.

The Report proposed three options for future international processes for considering forests. These alternatives were: taking no specific new steps; agreeing to the continuation of a high level forum with, as a sub-option, the possibility of moving to negotiations within a short period; or starting negotiations immediately on a legally binding instrument on forests. The Union will urge world leaders at the 1997 United Nations General Assembly Special Session to launch negotiations for a Forest Convention, which would ensure the comprehensive, integrated and coordinated approach to the forest issue and secure the long-term and shared global commitment needed.



Chapter 12

Managing fragile ecosystems: Combating desertification and drought

The Convention on Combating Desertification, which was signed by the Community in 1994, arose as a direct result of the priorities agreed in Agenda 21. The Convention, which came into force in 1996, identifies a set of measures to combat desertification and provides a code of good practice for both recipient governments and donors. This focuses on effective participation by local communities and their representative organizations in the planning, decision-making and implementation of national programmes, increased flexibility in project design, adjusting the institutional framework and building on traditional technologies for soil and water conservation. The European Union strongly supports the bottom-up approach of the Convention which stresses the need for the participation of local people if desertification is to be tackled successfully. The European Community is in the process of ratifying the Convention following ratification by most of the Union's Member States.

Desertification in Europe

While the Convention gives priority attention to Africa, desertification is also relevant for many European countries as shown by its Northern Mediterranean Regional Annex. Within the Community, anti-desertification measures have been supported through the Structural Funds and within the framework of the common agricultural policy. In addition, several programmes within the

Research Framework Programmes have supported scientific investigation of degraded dryland ecosystems and the complex physical and socio-economic interactions which can contribute to desertification in Europe and in developing countries.

Desertification and development cooperation

The fight against desertification and drought has been an important theme of the Community's development cooperation activities since the early 1980s. Lomé III (signed in 1984) saw the introduction into the Convention of a special section on desertification which identified ways of promoting sustainable agricultural production, reducing deforestation and halting soil erosion. The Fourth Lomé Convention (covering the period 1990-2000) stresses the overall importance of the goal of sustainable development, and strengthens the specific provisions on desertification agreed in 1984.

As a result, desertification is a priority area in many of the Lomé IV national and regional indicative programmes, particularly in southern and eastern Africa, as well as the Sahel and west Africa. Since 1990 around ECU 185 million has been provided under the Lomé Convention for projects concerned with combating desertification in Africa. Projects, many of which run for several years, have included soil conservation both at the national and regional level, the management of the river basins of the Upper Niger and the Upper Gambia, the development of butane gas as an alternative fuel to woody biomass, and environment information and education programmes. As part of the preparation of programmes for the period 1996-2000 a special awareness-raising and policy-planning process was undertaken to better integrate the Desertification Convention's measures into aid provided under the revised Lomé Convention.

The European Community has continued to support the work of the Intergovernmental Authority on Drought and Development (IGADD) in eastern Africa despite the political instability of the area.

Support has also been given to desertification projects in Asia and Latin America, particularly India, where several projects have been co-financed with the government to halt the deterioration of agricultural and pastoral lands in various dryland areas.

Between 1990 and 1995 just under ECU 105 million was committed to desertification projects in the Southern Mediterranean countries, many of which focused on the management of water resources and remote sensing. In addition, MedCampus and Peace Campus have funded desertification projects which provide institutional training and promote research cooperation.

Around ECU 10 million has been committed to two large scale projects funded under the TACIS programme in Central Asia. The first provides technical

assistance for water resource management in the seriously degraded agricultural lands surrounding the Aral Sea and its tributary river basins. The second, a natural resource planning project in the Lake Baikal region of Russia, aims to improve forestry management and avoid soil erosion and disturbing the natural ecological balance.

Research cooperation

The Third and Fourth Research Framework Programmes have contributed about ECU 30 million to joint desertification relation research projects involving scientists from the European Union as well as Africa, Asia and Latin America. These projects targeted the sustainable management of soils, the prevention of erosion, improving soil conservation and fertility and sustainable rangeland management. The European Community has also invested in remote sensing using satellites in an effort to improve understanding of desertification using funding from both the Lomé Convention and the Research Programme. Furthermore, research on ecological and socioeconomic aspects of desertification, with a focus on the Mediterranean area, has been supported from the Environment and Climate Research Programme.



Chapter 13

Managing fragile ecosystems: Sustainable mountain development

Thirty three percent of the less-favoured rural areas in the European Community are mountainous. Most mountain areas are intrinsically harsh environments for people to live and work in, and such areas are difficult to access and to cultivate. The climate is generally hostile for at least part of the year and the infrastructure is usually considerably less well developed than in non-mountainous areas. However, in most mountain areas moderate agricultural production is a precondition for the preservation of what is a highly sensitive ecosystem.

The twin priorities set by Agenda 21 of improving knowledge of mountain ecosystems and promoting the integrated development of mountains thus find their implementation in the European Union in a combination of social, environmental and agricultural policies. For example, Regulations have been introduced in the 1990s to support both farming and off-farm employment in hilly areas and to improve the infrastructure of such areas. Other programmes have focused on afforestation or the reduction of livestock density.

Other Community wide policies on desertification, forestry, atmosphere, biodiversity and water, which are described in the appropriate chapters, are also relevant to sustainable mountain development.

The Alpine Convention and other regional initiatives

In 1996 the Community completed ratification of the Alpine Convention, whose other contracting parties are France, Germany, Italy, Austria, Switzerland, Liechtenstein and Slovenia. The Convention defines a body of general obligations aiming to safeguard Alpine ecosystems and ensure the sustainable development of Alpine regions. Specific protocols are being developed on mountain farming, transport, regional planning and soil protection. The Convention promotes common planning and management amongst the contracting parties.

The European Community also took part in the European Intergovernmental Consultation on Mountain Areas held in Aviemore (April 1996) and Trento (October 1996) under the auspices of the FAO, as part of the preparation for the June 1997 UN General Assembly Special Session.

European Community support for mountainous areas through development cooperation

There are no special provisions for mountainous areas in the Community's development cooperation agreements but of course such areas receive support under national aid programmes. The Research Framework Programme has also assisted joint research with developing countries in Latin America, Sub-Saharan Africa and Asia into soil conservation in sustainable farming systems for mountainous areas.



Chapter 14

Promoting sustainable agriculture and rural development

The needs of an increasing global population, particularly the need for food security, provided the basis for a number of agricultural objectives in Agenda 21. The programme areas ranged from integrated planning and the improvement of infrastructure to issues such as water, energy and the use of genetic resources.

Sustainable agriculture and rural development in Europe

Reform of the common agricultural policy

In its early years, the common agricultural policy (CAP) focused on increasing productivity, farm income, and stabilization of markets and food security, while environmental aspects received less attention. However, more recently there has been a growing effort to reconcile agricultural policy and the environment.

In 1992 the Fifth Environmental Action Programme laid down the fundamental objective of maintaining the basic natural processes indispensable for a sustainable agriculture sector, notably through the conservation of water, soil and genetic resources. 1992 also saw a major reform of the common agricultural policy which has gone some way to achieving this goal by encouraging farmers to use less intensive production methods and by introducing a set of agri-environmental and afforestation measures. However, it is accepted that further

efforts will be required to integrate environmental concerns throughout agricultural policy.

A major part of the 1992 CAP reform involved changes to the common market organizations (CMOs) to limit the amount of price support available, avoid agricultural surpluses and to take into account environmental protection requirements. Many of the reforms have contributed directly or indirectly to adjustments in the farm sector which should reduce the stress on the environment. The reduction in price support, and the de-coupling of income support from the price system has reduced the incentives for intensive production and the use of chemical fertilizers and plant protection products. Nevertheless water pollution by fertilizers and pesticides and biodiversity degradation caused by inappropriate drainage and irrigation are of continuing concern.

Further measures to reform the CMOs are under way, and a further development should be expected, completing the 1992 reforms. The instrument of price support is thereby likely to decrease in importance. Furthermore there has been considerable European Community legislation on plant protection products covering all stages, from their initial development to their placing on the market, their use on farms, and their residues in crops and the environment. A Directive, now under implementation, requires all new and existing active substances to undergo (re)evaluation of their effect on health and environment. It also provides principles for the correct use of plant protection products and promotes good plant protection practice and integrated pest control.

In addition to the market changes, the 1992 CAP reform introduced agri-environmental measures. This represented a significant step towards a more sustainable CAP by linking market policy, rural development and environmental protection. The scheme is designed to promote farming activities which benefit the environment. Programmes are mandatory at Member State level and are managed by Member States or regions and co-financed by the Community. This approach takes account of the local ecological conditions. The budget for the 1993-97 period is ECU 3 670 million and by the end of 1996, 117 programmes had been approved in regions throughout the European Union.

The programmes comprise, for example, the promotion of less intensive and environmentally sound production methods, the reduction of livestock density, 20-year set-aside for ecological purposes, nature conservation and countryside stewardship activities. There is also support for training and demonstration projects. The agri-environmental measures enable the promotion of agricultural practices favourable to the protection of natural habitats of fauna and flora as well as providing for the maintenance of local animal and vegetable breeds threatened with extinction. Hence, on a limited scale, they provide a link between 'nature' legislation ('Habitats' and 'Birds' Directives) and CAP measures, and according to the Fifth Action Programme Review had been reasonably successful in these aims.

The afforestation measures which also accompanied the 1992 CAP reform are described in Chapter 11.

As part of the reform, the taking out of production (set-aside) of a proportion of arable land has been compulsory. The set-aside regulations integrate environmental objectives. For example, farmers may transfer set-aside obligations to another area of land in pursuit of environmental objectives. Land set-aside for agri-environmental purposes and afforested agricultural land may be counted, under certain conditions, against a farmer's set-aside obligation. Member States are also required to take measures to protect the environment on set-aside land. The scheme has also been extended to allow farmers to grow non-food products on set-aside land while still receiving the set-aside premium. This has encouraged the production of renewable resources such as biomass, technical oils, and raw materials for biofuels and for the pharmaceutical industry.

Rural development in Europe

Rural areas constitute the larger part of the European Union land mass and contain a quarter of the total population. Many rural areas are characterized by low levels of income and high dependence on agriculture. The continuous decline in agriculture employment and in the share of agriculture in GDP has made it difficult to maintain job opportunities, services and population in many rural areas, which in turn has had undesirable consequences on prosperity, the quality of life and the environment.

To counter these trends, the European Community has long supported rural development through the Structural Funds. The aim has been not only to help the agriculture and forestry sectors, but also to encourage economic and social diversification through, for example, rural tourism, the conservation and sustainable development of the natural environment, the promotion of value-added products, and the development of human resources.

Elements of the European Community rural development policy apply across the whole of the Union, but support is particularly focused on Objective 1 areas (regions with a per capita GDP less than 75% of the Community average) and on Objective 5b areas (other vulnerable rural regions with a low level of socio-economic development and other handicaps). In 1995 the accession of Sweden and Finland to the Union brought an additional focus for support, namely Objective 6 areas which comprise the very sparsely populated arctic regions of these two States.

The regions designated as Objective 5b for the period 1994 to 1999 contain 8.8% of the Union's population and they are due to receive ECU 6 680 million from the Structural Funds of which over 900 million ECU will be spent on the conservation and development of the natural environment. Nearly 17% of the Finnish population and over 5% of the Swedish population live in Objective 6

regions which are due to receive ECU 697 million for the period 1995 to 1999. Since the Objective 1 regions also contain major urban conurbations, it is difficult to determine the size of the rural population or to calculate the total Structural Fund allocations to them. However, the Objective 1 regions are due to receive ECU 13 709 million from the Agricultural Guidance Fund alone and this represents only a portion of the likely Structural Fund expenditure in these rural areas.

The 1994 amendments to the Regulations governing the Structural Funds included a number of measures to better integrate environmental concerns. These include the drafting of environmental profiles of regions eligible for assistance, the involvement of environmental authorities and the environmental impact assessment of programmes.

In addition, many of the 1994-99 Objective 1 and 5b programmes have used a new provision in the Regulations which allows Structural Funds to finance measures for sustainable development of the rural environment, including developing and strengthening agricultural and forestry structures which use methods and techniques that respect the environment.

In addition to support provided under the regional Objectives, the Structural Funds also finance special Community initiatives targeted on particular problems common to many parts of the Union. The ECU 455 million Leader Initiative, launched in 1991, aimed to provide support for locally-based, bottom-up integrated rural development in Objective 1 and 5b areas. The programme encouraged local responsibility for sustainable rural development initiatives through the active involvement of local populations, businesses, associations and local authorities. The positive experience in Leader I prompted a major expansion in the second phase, Leader II to which ECU 1 730 million has been allocated for the period 1995 to 1999. This will continue to support innovative demonstration projects and will emphasize the exchange of experience and know-how between rural communities and organizations.

In all some ECU 30 000 million is expected to be allocated from the Structural Funds for the period 1994 to 1999 for rural development throughout the Union. This represents a doubling of the resources available for rural development in the previous period (1989-93).

Support for sustainable agriculture and rural development in developing countries

The European Community has long supported agriculture and rural development through its aid programmes. The Third Lomé Convention which entered into force in 1985 marked an important step in giving greater priority to rural

development following the major famine which had ravaged Africa the previous year. Particular emphasis was placed on food security strategies both through increasing production and providing poor people with better access to food. Some ECU 1 000 million was devoted to assisting food strategies under Lomé III. Rural development continued to be a major focus during the first period of Lomé IV (1990-95) which also took into account the need to link the new attention given to structural adjustment support with a concern for food security.

The 1992 Regulation governing European Community support for Asia and Latin America states explicitly that the priority for assistance shall be given to the rural sector and improving the level of food security. In 1995 some ECU 175 million, or 33% of total Community aid to that continent was spent on agriculture and rural development programmes in Asia.

In 1994 a sectoral evaluation of 160 European Community financed rural development projects was carried out which concluded with a rather pessimistic prognosis of their environmental impact, a result which echoed the experience of other donors. Partly as a result of the evaluation, the European Commission identified a number of issues on which support for sustainable agriculture and rural development should focus. These were:

- support for national policies and strategies;
- promoting farmer-centred research and extension;
- improving rural infrastructure;
- strengthening local resource management;
- providing entitlements for food security;
- establishing fair and secure land tenure; and
- reinforcing farmers' organizations and users' groups.

Also in 1994 the Council adopted a Resolution on Food Security Policies and Practices which stressed the need to seek long-term food security at the regional, national and household level, through long-term strategies, the importance of political stability and the end of armed conflicts for food security, the importance of systematic consideration of the different responsibilities of men and women in household food security, the need to make food security an underlying theme in cooperation with food deficit countries, the need for better early warning systems for detecting impending food crises and the need to ensure food aid was linked into wider development cooperation efforts. The Resolution led to the adoption of a reform of food security policy towards developing countries in July 1996.

In this reform the European Community committed itself to improving the access of developing countries to the world market and to helping countries to strengthen their domestic policies and strategies towards food security in

particular for vulnerable groups of the population. The new policy confirmed the increasing importance in Community food aid of local purchases and triangular operations (where products are purchased in developing countries, preferably in the same region as the receiving country) rather than the traditional shipment of food from Europe. The Community is the only major donor to permit or promote such operations and currently devotes over 40% of food aid resources to triangular and local purchases.

Support for sustainable agriculture and rural development in economies in transition

Since 1990 the European Community has also provided food aid and support to agricultural restructuring for the economies in transition. Between 1990 and 1994 some ECU 400 million was provided for restructuring the agricultural sectors of countries in central and eastern Europe and a further ECU 262 million was given for the same purpose to the New Independent States between 1990 and 1995.

The World Food Summit

The European Community, as a Member of the Food and Agriculture Organization (FAO), participated actively in the World Food Summit held in Rome in November 1996. As the one of the world's largest donors of food aid, the European Community noted the importance of such aid in crisis situations and subscribed to the Summit Declaration which stressed the importance of linking long-term food aid to wider development efforts.

Research into sustainable agriculture

Under the Fourth Research Framework Programme, a substantial agricultural research programme has been developed, one of whose key objectives is the establishment of the scientific basis for sustainable agriculture. The programme supports, *inter alia*, research into less intensive and more environmentally friendly techniques of animal and vegetal production, socioeconomic research on rural development, and economic research on the links between environment and agriculture. Criteria have also been established to ensure that projects whose objectives are not compatible with environmental requirements are not supported. In addition, there is considerable emphasis on the dissemination of results from the agricultural research programmes to scientists, extension services, development services and directly or indirectly to farmers.

Internationally the European Community has a dual role in the field of agricultural research for development. Firstly, as a scientific partner, linking European and developing country institutions in broad-based scientific and technological cooperation, and secondly as a donor to international agricultural research centres and national agricultural institutions in developing countries. Europe contributes around 43% of the \$300 million of the annual budget of the Consultative Group on International Agricultural Research.

Scientific and technological cooperation with developing countries in the field of agriculture has existed since 1983. Close to 800 joint-research projects have been implemented through a variety of instruments for a total of more than ECU 350 million. In 1992 sustainability criteria were introduced into the selection of these projects and the emphasis was placed on research aiming at increasing land productivity and farm incomes. This meant a focus on life sciences research as well as research on the socio-economic and policy variables determining the success of agricultural and rural development.

Since 1994, a group of European countries involving all Member States, Norway and Switzerland and the European Commission have launched an initiative aimed at improving coordination and promoting further cooperation with developing countries in agricultural research. This initiative, the 'European Initiative for Agricultural Research for Development' (EIARD) aims at facilitating free dialogue and voluntary coordination between all interested and relevant actors (i.e. universities, research institutes, private sector, etc.) in Europe and in developing countries. Its secretariat is based at the European Commission.

Plant and animal genetic resources for agriculture

The European Community recognizes that Europe's genetic resources in agriculture, which constitute an irreplaceable fund of biological diversity, should be preserved; and that all necessary measures should be taken to conserve, characterize and utilize those resources to promote the aims of the common agricultural policy and safeguard biological diversity. Accordingly in 1994 the Community adopted a Regulation, 1467/94, which provides an underpinning structure for technical support to such conservation.

The European Community participated in the Leipzig Conference on Plant Genetic Resources in June 1996 which adopted a Global Plan of Action for the Conservation and Utilization of Plant Genetic Resources for Food and Agriculture. The Community is also participating in the on-going work aimed at revising the FAO's International Undertaking on Plant Genetic Resources in the light of the Convention on Biological Diversity.



Chapter 15

Conservation of biological diversity

Both the Member States and the Community are parties to the Convention on Biological Diversity, agreed at the 1992 Rio Summit. The Convention provides an overall framework to European Union biodiversity strategy which also reflects a number of other international agreements including the Convention on International Trade in Endangered Species and the Bonn, Berne and Ramsar Conventions. These agreements are implemented through specific conservation legislation, the integration of biodiversity concerns into other policy areas, the promotion of research, monitoring of performance and the provision of funding to support conservation initiatives.

Biodiversity in Europe

The Habitats and Birds Directives

The main Community legislative instrument in this field is the Directive on Habitats, Flora and Fauna (Directive 92/43). It is supported by an earlier Directive on the Conservation of Wild Birds (Directive 79/409), and the ratification by the Community of international conventions, such as the Berne Convention on the Conservation of European Wildlife and the Bonn Convention on the Conservation of Migratory Species.

The Habitats Directive establishes a common framework for the conservation of animals, plants and natural habitats in the European Union through the creation of the Natura 2000 network of special areas of conservation. These areas, which

are representative of a number of listed natural habitat types and the habitats of vulnerable species, are identified, designated and protected by Member States, thereby establishing a European network in cooperation with each other and the Community. The creation of this network and the maintenance or restoration of natural habitats and the protection of species of wild fauna and flora are key objectives of the Fifth Environmental Action Programme. It is expected that the network will be completed by 2004.

However, whilst the necessary European Community legislation is in place to ensure effective nature protection, it is not yet fully implemented in several Member States and delays are occurring. Member States have had difficulty in implementing the process of naming sites, and unless this is resolved there is a danger of an eventual significant loss of effectiveness of the Natura 2000 network. Concern has also been expressed about the nature and extent of the financial measures needed to ensure maintenance of the network.

The Environmental Impact Assessment Directive

The Directive on Environmental Impact Assessment of Actions (Council Directive 85/337) is a central instrument in Community environmental policy and is a particularly important tool in the context of biodiversity. It stipulates that before certain projects can be undertaken, the developer must undertake an assessment of its impact on human beings, flora and fauna, soil, water, air, climate and the landscape and on how these factors interact. Further information on EIA is given in Chapter 10.

Biodiversity and Community funds

Many regional programmes assisted by the Structural Funds contain projects to protect the environment and conserve the countryside, or include demonstration and pilot projects for environmental and countryside management. However, the large increase in the level of Structural Fund support for the less developed parts of the Community in the period 1989-94 revealed certain problems in reconciling the needs for economic growth and nature conservation, especially as the poorer areas contain some of the most important habitats. The requirement, introduced in 1993, to produce environmental profiles for eligible regions and the strengthened environmental appraisal provisions in the Structural Fund Regulations have helped to mitigate these problems. Furthermore, Structural Funds have sometimes been used to finance studies and measures aimed at reconciling economic and environmental conservation needs. For example in the case of the Dōnana National Park containing an internationally significant wetland area in Spain, the Funds were used to draw up plans for the surrounding area which took better account of the need to maintain the water resources. As a result of the studies, the European Community will provide some ECU 147 million to a second phase of the Dōnana regional development programme.

In 1992, the Community created a new financial mechanism called LIFE to support its environmental policies. Normally, the mechanism can finance up to 50% of the costs of an accepted project, but to encourage nature protection a special provision allows LIFE to cover 75% of the costs for protecting a site under the Habitats Directive.

Action in developing countries

The European Community has a long history of providing support in the field of biodiversity protection, including assistance for the protection of endangered species, as well as improving the management of protected areas and national parks, especially in Africa. At least ECU 60 million was committed to biodiversity projects in developing countries between 1990 and 1995. Further sums were devoted to capacity building including ECU 8 million for wildlife management training in the Southern Africa region. Interventions address problems such as unsustainable overexploitation of biodiversity and lack of resources for protection and management. For example, projects in central Africa have developed effective institutional mechanisms for protecting tropical rainforest habitats and identifying opportunities for income generation by local communities. An ECU 4 million project based in Kenya is devoted to elephant conservation and a community wildlife programme. The Himalayan Jungle Project in Pakistan has effectively empowered local communities to manage and protect areas of significance for biodiversity.

Research on genetic resources

Fundamental research for improving *ex situ* conservation is supported under the biotechnology programme of the Fourth Research Framework Programme, and more practical research to preserve the genetic heritage and biodiversity of crops, including wild species and animals, is supported by the specific programme Agriculture and Fisheries and includes research linked to agro-industry, food technologies, forestry, aquaculture and rural development.

Research under the International Cooperation Programme of the Fourth Framework Programme targets the Conservation of Biological Diversity in two different but complementary ways. First it supports joint research projects with developing countries on methodologies to assess and conserve biodiversity *in situ*, including techniques aimed at farmed plants and livestock. Second, it supports joint research on biodiversity-rich ecosystems such as tropical forest, wetlands and coastal zones targeting on its sustainable multi-purpose management and the search for higher economic output from multi-sectoral uses.



Chapter 16

Environmentally sound management of biotechnology

The overall strategy

Biotechnology and its widespread commercial use is a relatively recent development. However, the huge potential that lies within this new science is already apparent. The themes set out in Agenda 21 sought to foster internationally agreed principles on the environmentally sound management of biotechnology; to engender public trust and confidence; to promote the development of sustainable applications of biotechnology; and to establish appropriate enabling mechanisms, especially within developing countries.

European Community action has taken a three-track approach:

- international agreements;
- the implementation of Community legislation ensuring the adequate protection of human health and the environment. The legislation covers the contained use and release to the environment of genetically modified organisms, both for research and development purposes and for the purpose of placing such organisms on the market;
- the enhancement of financial support and promotion of specific programmes for research and development.

In 1994, the Commission adopted a communication on biotechnology and the White Paper on 'Growth, competitiveness and employment' which proposed

actions aiming at better exploiting the European Union's potential in the field of biotechnology, while ensuring continued respect for safety requirements. This potential includes aspects of relevance for sustainable development, such as clean technologies and bio-remediation.

International activities

The European Community considers the safety of biotechnology ('biosafety') crucial to sustainable development. The Community also seeks to ensure that biosafety concerns are integrated into the transfer of biotechnology in the implementation of the Biodiversity Convention and Agenda 21. The Community supports the development of internationally agreed common approaches and standards for biosafety in order to protect the global environment and establish a 'level playing field' for competition.

International cooperation for the sound management and use of biotechnology is being supported by the Community through:

- the promotion of enabling mechanisms and capacity building to support countries in developing risk assessment, management and biotechnology oversight mechanisms;
- joint research activities with developing countries under the International Cooperation Programme concentrating on biotechnological applications for agriculture, health and natural resource management.

The European Union is participating in the process which will consider the need for, and modalities of, a protocol on biosafety under the Convention on Biological Diversity. The Union also supports the UNEP International Technical Guidelines for Safety in Biotechnology agreed in Cairo in December 1995.

Legislation

The main elements of the European Community regulatory framework for biotechnology have been in force since 1991, and have been regularly updated as technical knowledge has improved. At present a comprehensive review of all relevant legislation is under way.

While recognizing biotechnology's potential for useful applications in a wide range of areas, the Community is also aware of the need to ensure its safe development. Therefore, and in the light of the precautionary principle, the Community's legislation lays down notification procedures and requires any person intending to use, release or market a genetically modified organism to carry out risk assessments. Community legislation in the field of biotechnology is not restricted to horizontal instruments, but also includes product-specific

legislation. For example, the Community has recently adopted a Regulation on Novel Foods and Novel Food Ingredients.

The European Commission has also established a high level, independent Group of Advisers on the Ethical Implications of Biotechnology to monitor questions such as those raised in Chapter 16 of Agenda 21.

Research and development

Since the adoption of Agenda 21, the Commission has considerably expanded its relevant research programmes within the Life Sciences and Technologies Programmes. In order to make the most of available resources there has been a focus on specific research areas (biotechnology; biomedicine and health; agriculture and fisheries) and on increasing coordination between Member States and the Community's research programmes. The Biotechnology Research Programme has addressed the potential risks of biotechnology, particularly in relation to the impacts of the release of genetically modified organisms into the environment.



Chapter 17

Protection of the oceans, all kinds of seas, including enclosed and semi-enclosed seas, and coastal areas, and the protection, rational use and development of their living resources

Agenda 21 contains a substantial chapter on the oceans with six linked programme areas and a specific section on 'Small island developing States' which was further developed in the Barbados Programme on Action adopted in 1994. European Community activities under the different programme areas are described below.

The European Community's role in international arrangements

Fisheries is a common policy of the Community under the Treaty. The European Community therefore participates as either a contracting party or an observer in most of the international fisheries organizations.

Since the early 1970s, the European Community has also built up a considerable body of policy and legislation to protect the ocean environment, including

controls on detergents, marine pollution from land-based sources, bathing water and discharges and emissions of dangerous substances. The Community also participates in a range of regional and international oceans and seas agreements, including the Convention for the Protection of the North-East Atlantic which combines the Oslo Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft and the Paris Convention on Marine and Land-Based Sources of Pollution; the Barcelona Convention for the Protection of the Mediterranean; the Berne Convention for the Protection of the Rhine; the Helsinki Convention for the Protection of the Baltic; and the Convention on the Conservation of Antarctic Marine Living Resources, and is about to ratify the UN Convention on the Law of the Sea (UNCLOS). Community legislation helped to translate the political objectives of the first three conferences on the Protection of the North Sea, held in Bremen (1984), London (1987) and the Hague (1990) into legally binding requirements.

The Community participated actively in the Fourth North Sea Conference held in Esbjerg in June 1995 as well as in the Intermediate Ministerial Meeting on the Integration of Fisheries and Environmental issues held in Bergen in March 1997. This meeting took place within the framework of the Fifth North Sea Conference.

Integrated management and sustainable development of coastal areas, including exclusive economic zones

Almost half of the European Union's population lives within 50 km of the coast. The environment of many of Europe's coastal zones is becoming increasingly degraded through habitat loss, water pollution and landscape deterioration. This decline is largely the result of problems in the enforcement of existing policies and regulations, which are in turn a product of the difficulties in coordination between the many actors operating in coastal zones (industry, transport, fishery, agriculture, tourism) as well as between the different levels of administrative authority.

In 1995 the European Commission presented a communication on integrated coastal zone management and, following the reaction of the Council, has launched a demonstration programme. The aims of the programme which will be developed over three years are:

- to provide a technical basis for identifying the conditions which have to be met so that sustainable development can be achieved more quickly in the wide variety of European coastal situations;
- to use this technical basis to stimulate debate between the principal parties involved in the development of the coastal zones and to seek consensus in regard to the measures to be taken;

- to permit the design of proposals for a coherent programme of actions and measures which would form a European Strategy in respect of Integrated Management of the Coastal Zones.

In 1997-98 work based on 26 demonstration areas and on six transversal thematic analyses will concentrate on demonstrating the conditions for the successful implementation of sustainable development in coastal areas. In 1999 the results of the programme will be widely disseminated and discussed with all parties involved. On that basis the Commission will prepare further proposals for action.

Marine environmental protection

The European Community promotes marine protection through its adherence to, and implementation of, the relevant international conventions it has joined. Commitments made under these agreements underlie much of the European legislation on marine protection from shipping and from land-based sources of pollution.

Shipping

Traditionally, Community efforts to combat pollution from ships were directed at tackling immediate problems caused by shipping and measures were based on the command and control approach to regulation. This often required significant efforts and financial resources to achieve proper enforcement and implementation. However, whilst a range of legal instruments introduced by the Community to control marine pollution from shipping have been successful, it is now recognized that other policy tools need to be considered. In 1993 the Community adopted an overall strategy to improve the environmental and safety of shipping entitled 'A common policy on safe seas'. It also produced the Maritime Strategy Paper in April 1996 which describes the main axes for the future of maritime transport policy, including safety at sea.

A number of shipping associations have adopted voluntary measures, such as the International Chamber of Shipping's Environmental Code, to improve their environmental performance. In addition, the European Community gives priority to the development of waste management systems for shipping operations that identify more structural solutions to pollution through prevention, recycling and closed-loop processes. The availability of shore reception facilities for ship's waste is another essential element of effective management strategies, and the European Commission intends to initiate further measures to promote the use of such facilities and monitor the effects of their use.

Pollution from maritime accidents

There have been a number of important pieces of Community legislation adopted in the field of maritime safety, such as:

- a Directive adopted in 1993 concerning notification requirements for vessels bound for or leaving Community ports and carrying hazardous cargoes;
- the development of a trans-European VTMS (Vessel Traffic Management and Information System) which, through data exchange, monitoring and assistance to navigation systems, aims to reduce the risk of accidents and pollution at sea;
- the Regulation on Segregated Ballast Tanks of 1994 which aims to promote the use of environmentally friendly tankers;
- the Port State Control Directive, in force since July 1996, which will contribute to drastically reducing the number of sub-standard ships within European waters, through the verification of ships' compliance with major international conventions in the field of maritime safety and pollution prevention.

To further help control and reduce pollution caused by hydrocarbons and other harmful substances released at sea, the European Commission has developed a Community action programme to support Member States' efforts to improve their capabilities for response in major pollution incidents at sea and to create conditions for mutual assistance and cooperation. The European Commission is assisted in its implementation by a high-level advisory committee of the Member States which also facilitates the exchange of information and experience.

The Action Programme has three major components:

- a Community Information System (CIS) to facilitate effective cooperation through the provision of information from the European Commission's own updated databank;
- a training programme, both to improve response capabilities and to foster the spirit of cooperation;
- surveys and support to Member States through pilot projects to improve technology and knowledge in the field of marine pollution.

In addition the Commission has established an 'Urgent Pollution Alert Section' in Brussels which can be reached round the clock. When called upon, the Section activates the Community Task Force which is composed

of government experts who can attend the scene in a very short time to provide professional services.

The Washington Conference on Land-Based Sources of Pollution and the Global Plan of Action

The European Community took part in the Washington Conference in 1995 and is currently studying the implications of the whole of the agreed Global Plan of Action. The Community has played an active role since the Washington Conference in promoting the international implementation of the plan, for example at the 19th Governing Council of UNEP which agreed to open negotiations on persistent organic pollutants.

The Community's major legislative weapon against sewage pollution is the 1991 Urban Waste Water Treatment Directive. Progress made by Member States in its implementation has been unequal. However, considerable investment programmes are now in place which are expected to have a marked impact on the state of the Community's water before the end of the century. The Structural and Cohesion Funds have contributed in large measure to these programmes. As a result of that support the number of towns in Greece with waste water treatment systems will more than double between 1993 and 1999 by which time 71% of the population should be covered. In Portugal the proportion of the population connected to the sewerage network will rise from 55% in 1990 to 90% in 1999. In both cases the marine environment should benefit as a result of these investments.

The 1991 Nitrates Directive is a key Community legislative tool for controlling pollution from fertilizers. Its implementation has, however, not been satisfactory in several Member States and proceedings have been initiated against certain Member States for non-compliance. A recent review of Community water legislation included an analysis of the need for a possible Directive on phosphate reduction. This concluded that the full application of the Nitrates Directive should be a precondition before taking any further steps to combat eutrophication. Measures to control pollution from phosphorus and organohalogenes are included in the framework of the Oslo and Paris Conventions and the North Sea Conference in which the Community participates.

Protection of oceans and coastal waters from land-based sources of pollution is also a factor in the need for sustainable production in the manufacturing industry. The Community has adopted an integrated approach to sustainable production which is described in Chapters 4 and 9.

Sustainable use and conservation of marine living resources of the high seas; Sustainable use and conservation of marine living resources under national jurisdiction

The common fisheries policy

Member States have transferred competence to the Community with regard to the conservation and management of living marine resources. Hence, in this field, it is for the Community to adopt the relevant rules and regulations (which the Member States enforce) and within its competence to enter into external undertakings with third States or competent organizations. This competence applies in regard of waters under national fisheries jurisdiction and to the high seas.

The importance of multilateral cooperation for the conservation and rational management of the sea's resources has grown as the fishing effort in all main fisheries continues to expand. Consequently, the Community participates, either as a contracting party or as an observer, in the work of a number of international conventions and organizations established, at the appropriate regional levels, for the purposes of conserving the fisheries resources concerned. The main objectives of these organizations has been to develop management models for the most important stocks in the relevant waters they cover and to allocate fishing opportunities among the parties.

In addition to participation in regional organizations, the European Community and all the Member States have signed the 1995 New York Agreement on Straddling Fish Stocks and Highly Migratory Fish Stocks. The Community also endorses the voluntary FAO Code of Conduct for Responsible Fisheries and has accepted the Agreement to Promote Compliance with International Conservation and Management Measures by Vessels Fishing in the High Seas.

Within European Union waters, over-fishing has been a problem and it was considered that a number of stocks were outside safe biological limits or would become so at current levels of fishing. The general objectives of the revised common fisheries policy agreed by the Council in 1992 are therefore to protect and conserve available and accessible living marine aquatic resources, and to provide for rational and responsible exploitation on a sustainable basis. This must be done in appropriate economic and social conditions for the sector, taking account of the implications for the marine ecosystem, and the needs of both producers and consumers. To that end the Community system strives to enable a balance to be achieved, on a permanent basis, between resources and exploitation in the various fishing areas.

Since 1983, management of exploitation rates in Union waters has been based on the application of total allowable catches (TACs) which are set annually for a number of commercially important stocks. Each TAC is then divided up

among Member States in the form of quotas. In addition, access to waters is regulated, while control and enforcement systems have been put in place to ensure compliance with CFP constraints. However, in current circumstances, the TAC and quota system alone cannot guarantee adequate conservation of the resources. Where overcapacity exists, this results in a tendency to overshoot the quotas. For this reason, the Community is adopting a complementary policy of limited fishing effort. This policy started in part of the Atlantic in 1996 and a proposal to extend it to the Baltic Sea is currently being discussed.

The Community also aims to reduce the fishing fleet to a size compatible with the availability of fish stocks and to maintain a modern and economically viable fleet. Support is provided largely through the Financial Instrument of Fisheries Guidance (FIFG) which is one of the Structural Funds. Its total budget which covers a number of tasks including restructuring fishing fleets is ECU 885 million for the period 1994 to 1999. The FIFG also provides increasing financial aid for the development of aquaculture which can help to meet the demand for fish without endangering certain declining stocks. Support has also been granted to initiatives such as the creation of artificial reefs.

Fisheries agreements with third countries

The European Community has concluded a number of bilateral fishing agreements with third countries. These take various forms: some are reciprocal arrangements whereby the Community offers fishing opportunities inside its waters in exchange for equivalent opportunities in the waters of other States. In other cases, the Community secures fishing opportunities in exchange for lower customs duties or for global financial compensation from the Community budget and from shipowners. Some agreements provide both funding and tariff concessions. Recently, fisheries agreements have developed into second generation agreements. In exchange for fishing opportunities, the Community offers certain trade concessions and grants assistance for the funding of scientific and technical cooperation schemes. Moreover, assistance is given to Community shipowners and fisheries' interests in the third countries to promote the establishment of joint enterprises and joint ventures.

Fisheries research

The European Community has long supported fisheries research. In the past, most research was specifically related to fish stocks of commercial value. Since Rio, however, there has been increasing support for research on the biological impact of fisheries on non-commercial fish species and other biota, as well as for studies of a multi-species approach to fisheries management. Unfortunately, existing data on the biological impact of fisheries on marine ecosystems and vice versa remains inadequate. Internationally coordinated research is needed,

with further attention being paid to the effects of human activities on the marine ecosystem, including fisheries.

Considerable support is provided under the aegis of the International Cooperation Research Programme for joint research on fisheries, aquaculture and the sustainable management of oceans and coastal zones in developing countries.

Following a resolution by the European Union-ACP Joint Assembly, a joint European Union-ACP Fisheries Research Initiative is about to be launched. This will build on the analysis and experience of the internationally endorsed Strategy for International Fisheries Research. The initiative aims at sustainable benefits from aquatic ecosystems, reconciling the need to use resources with conservation concerns and will therefore promote the transition from a sectoral to cross-sectoral approaches. It will move the focus of research from primarily technical issues towards a wider approach taking into account the ecological, cultural, political and institutional context. The research will encourage dialogue between the public and private sectors and support consensus building. It is intended that the initiative will be a genuine partnership between developing and developed countries.

Addressing critical uncertainties for the management of the marine environment and climate change

In order better to assess the role of the marine environment in climate change, the interactions of the processes involved need to be more clearly understood. The Community therefore supports practical and theoretical studies of interactions between the atmosphere and the ocean system through the Marine Science and Technology Programme (MAST) of the Fourth Research Framework Programme. These activities are undertaken in conjunction with relevant research programmes of Member States and, where appropriate, contribute to international programmes such as the International Geosphere-Biosphere Programme and the World Climate Research Programme. The Community provides funds for the European Joint Global Ocean Flux Study Marine Remote Sensing Coordinating Office. It has launched a special initiative to contribute via the MAST and the Environment Research Programmes to look at land-ocean interactions in the coastal zone and supports projects relevant for global ocean ecosystems dynamics and the World Ocean Circulation Experiment.

The European Commission's Joint Research Centre plays an important role in research into global change and is involved in many of the collaborations mentioned above.

Strengthening international, including regional, cooperation and coordination

In addition to the fishing agreements with third countries described above, the European Community provides development assistance for fisheries to many developing countries. The emphasis in this area is placed on marine conservation and the sustainable use of resources through field projects; the development of information systems and management support mechanisms and tools; and investment in human and institutional resources and research. Some ECU 40 million in Community aid was committed between 1990 and 1995 to marine resources projects in developing countries.

The Community's recent support for fisheries sector projects notably in Latin America, Vietnam, Philippines, Sierra Leone, and other sub-regions in Africa has taken a more holistic resource-system approach than earlier projects and has emphasized the creation of appropriate institutions with the potential for consensus building or conflict resolution.

The Community has long recognized that the provision and rapid free circulation of information is one of the key elements for sustainable resource use. The Community largely financed FishBase and ReefBase, developed by the International Centre for Living Aquatic Resources Management (ICLARM) in collaboration with the FAO and many other institutions. These electronic encyclopaedias on all fish and reef systems in the world are both available on CD-ROM and as of 1997 will be partially accessible on the Internet. Efforts have been made to ensure that the information responds to local needs. For example, more than 50 000 local names in 150 languages have been included in FishBase.

Both databases are already being put to use. FishBase is the technical core of a project to strengthen fishery and biodiversity management in all ACP countries. The project will provide training and equipment as well as capacity building support for ACP countries and promote partnerships between ACP and European institutions. ReefBase has been chosen as the information tool of the International Coral Reef Initiative (ICRI).

A regional project on the joint development and implementation of a fisheries information and analysis system is currently being prepared through dialogue between Northwest African and European partners. The aim is to provide planning and decision-makers with more powerful analytical tools and therefore support the countries' ambitions for sustainable or even increased socio-economic benefits from the fisheries sector which already accounts for an average of some 20% of GDP in the countries concerned. The intention is to add value to already on-going and planned efforts by the countries themselves and projects supported by other external partners.

In addition to its cooperation in fisheries, the European Community supports a number of marine conservation projects. For example, the Community supported a study on integrated coastal area management in the ASEAN area to assess the resilience of various types of coastal zones to outside pressure and to examine their natural environment variability. This study has paved the way for a collaborative research programme between ASEAN and European institutions to develop a user-friendly expert information system to support decision-making in situations of competing trans-sectoral demands on limited resources in the coastal zone. The system will give planners and decision makers a better understanding of the likely effects of various land or sea-based development options and should facilitate negotiation of acceptable solutions in keeping with overall sustainability concerns.

Small island developing States

The European Community has links with a number of small islands. Some are independent States (of which 26 participate in the Lomé Convention), whilst others are tied to individual Member States and are known as Overseas Countries and Territories (OCTs). The latter are linked to the Community through the Treaty on European Union and so receive special support.

Under the Lomé Convention specific attention is given to the special geographical situation of island States. There are a number of extra concessions on trade, for example in the application of trade access rules, and the island States also benefit from more favourable terms in qualifying for support under Stabex (stabilization of ACP States' earnings from certain agricultural exports) and Sysmin (stabilization of ACP States' earnings from certain mineral products).

The Community played a significant role in the 1994 Barbados UN Global Conference on Sustainable Development of Small Island Developing States and much of the Lomé Convention is echoed in the Barbados Plan of Action. Although priorities for Community development aid vary between the different island groups there has been a clear focus on rural development, fishing, transport, communications and social sectors.

Unfortunately natural disasters such as earthquakes or hurricanes have meant that post-disaster support has become a major feature of European aid to the island states. To try to reduce the need for such support, the Community has helped to fund disaster prevention programmes through organizations such as the International Federation of Red Cross and Red Crescent Societies.



Chapter 18

Protection of the quality and supply of freshwater resources: Application of integrated approaches to the development, management and use of water resources

Freshwater resources, as recognized by Agenda 21, are an essential component of the Earth's hydrosphere and an indispensable part of all terrestrial ecosystems. In particular Agenda 21 highlighted seven areas where action needed to be taken immediately:

- integrated water resources development and management;
- water resources assessment;
- protection of water resources, water quality and aquatic ecosystems;
- drinking water supply and sanitation;
- water and sustainable urban development;
- water for sustainable food production and rural development;
- impacts of climate change on water resources.

Community action on freshwater in Europe

Legislation

Legislation has been the single most important instrument of the Community's policy for ensuring the quality of water throughout the European Union and in controlling pollution of the aquatic environment.

In the past two complementary approaches have been followed, with the establishment of quality objectives for water intended for a specific use, and the adoption of rules aimed at attacking aquatic pollution at source. The Directives on Drinking Water and on the Quality of Bathing Water have had a significant impact on standards throughout the Union and the European Commission has brought forward proposals to simplify and update them (see below). The Urban Waste Water Treatment and Nitrates Directives have been less successful since implementation by Member States has been patchy. Legal proceedings in the European Court have been initiated against some Member States for non-compliance with the Nitrates Directive.

A new policy approach to water pollution and protection of aquatic ecosystems has been developed over the last decade which recognizes that the issues of quality, quantity and availability of water resources cannot be separated. The Council therefore invited the European Commission to develop a new integrated approach which would deal with the management of surface and ground water as a whole, and promote the integration of water policies into the wider environmental framework as well as into other policies dealing with human activities. As a result the Commission prepared an action programme for integrated groundwater protection and management, and in February 1996 launched a Communication setting out guidelines for a new Community policy on water which took into account both qualitative and quantitative aspects. This communication was the subject of an extensive consultation process.

Following those consultations the European Commission made proposals in February 1997 for a new Framework Directive on Water. Six old Directives will be repealed and the new Directive is intended to establish a coherent framework for the protection of surface water and groundwater in the European Union based on a natural river basin, rather than an administrative area, approach. The Directive is designed to protect and enhance the quality and quantity of aquatic and terrestrial ecosystems, and by doing so it will contribute to the provision of a supply of water in the quantities and qualities needed for sustainable development.

The European Commission believes that the proposed Framework Directive will meet its objectives in four main ways:

- by creating an overall framework within which Community, national and regional authorities can develop integrated and coherent water policies, while

being flexible enough to take account of the wide regional variations in water situations across the European Union;

- by providing a safety net for addressing issues that have not been adequately covered so far;
- by providing a sound basis for collecting the information needed for the adoption of sound policies;
- and by requiring public consultation and the publication of information.

The overall environmental objective in the proposed Directive is to achieve 'good status' in all waters by the end of 2010. For groundwater good status is measured in terms of both quantity and chemical purity; for surface waters ecological quality is an added criterion. A combined approach to pollution control is envisaged requiring both limit values to control emissions from individual point sources and environmental quality standards to limit the cumulative impact of emissions. The Framework Directive will be the first piece of Community water legislation to address the issue of water quantity.

Perhaps the most important innovation proposed in the Framework Directive is the introduction of full cost recovery pricing. By 2010 Member States would be required to ensure that the price charged to households, farmers and industry for water services reflects the true cost of the abstraction and distribution of freshwater and the collection and treatment of waste water. It is intended that the full cost will include environmental damage caused by water use, and the effects of depletion on future generations. The European Commission intends to table methodologies for calculating these costs. Exceptions to full cost pricing would be allowed to ensure that households were charged an affordable price for a basic level of water use.

In addition to the Framework Directive, two other pieces of European Community water legislation are currently under review. Following intensive consultations with Member States, industry and NGOs, the European Commission presented proposals in January 1995 for a revised Drinking Water Directive. The aim was to simplify and update the 1980 Directive for both consumers and water authorities, whilst maintaining, or in some cases improving the level of protection. The proposal is being considered by the other Community institutions and is expected to be adopted in late 1997. A proposal to update and simplify the implementation of the Bathing Water Directive was presented in 1994.

Financial support for action in the European Union

As noted above a number of Member States have had difficulty in complying with existing European Community water legislation, particularly the Waste Water Directive. Investments aimed at tackling these deficiencies have been a

major component of Structural and Cohesion Funds spending now underway which is expected to have a marked impact on the state of the Community's water before the end of the century.

It has been estimated that the poorer regions of the Union in five Member States need collectively to spend more than ECU 2 000 million a year from 1993 to 2003 to ensure that their water supply and urban waste water infrastructure conforms to European Directives. To address those needs nearly ECU 7 000 million will be committed from the Structural Funds in the period 1994 to 1999 to water distribution and sanitation projects in Objective 1 regions (those regions with a GDP less than 75% of the European union average). This represents 84% of the Objective I Structural Fund allocations which have been identified as having an environmental purpose. As a result of national and Community efforts, the proportion of the population connected to the public water supply in Portugal should rise from 61% in 1989 to 95% in 1999. Surface water in Greece should benefit from a 10% improvement. In Ireland, the proportion of the urban waste water treated in accordance with Union standards should rise from 20% in 1993 to 80% in 1999. Sewerage treatment capacity is expected to serve 75% of the population of Spanish Objective 1 regions by 1999 as against 59% at the start of the programme.

Action in developing countries and economies in transition

Limited support has been provided for improving management in the water supply sector in the economies in transition.

Support of the freshwater sector, and particularly water supply and sanitation has been a priority under successive European Development Funds (EDF) to ACP countries. The sector is closely linked to the priorities of European Union development policy as defined in the Treaty on European Union and in particular to the fight against poverty, the promotion of sustainable economic and social development and the conservation and management of natural resources.

One of the key areas of support is integrated water resources development and management. Such projects require and support the establishment of national and regional water policies focusing on sustainable resource management. The European Commission is currently working on guidelines in the water resources sector in order to improve water resources management and integration between the different water uses, mainly water supply and sanitation, irrigation and hydropower.

Following the decision of the Global Water Partnership to start its work with a focus on Southern Africa, the Community is supporting the newly created

SADC Water Sector in Southern Africa, with a EU/SADC Conference on shared watercourses held in Lesotho in May 1997.

The Community is also active in water resources assessment. Following participation in the Sub-Saharan Africa Hydrological Assessment, the EDF is funding the establishment of HYCOS (Hydrological cycle observing system) in the SADC region. Contributions are also made in HYCOS preparation in other regions in Africa.

The EDF has also funded large number of water supply and sanitation projects in rural and urban areas, many of them undertaken as part of integrated rural or urban development programmes. Since 1990, more than ECU 270 million have been provided for such projects in ACP States, almost equally divided between rural and urban areas. The accent is put on ensuring the viability of installations by emphasizing the need for proper management and maintenance and in particular, highlighting the role of local communities and civil society. Priority goes to rehabilitation of existing installations and to the reduction of water losses. Public awareness and training campaigns are conducted to ensure local participation. Priority is also given to small scale projects carried out by local communities and NGOs.

Within the European Community's other aid programmes, the focus has been on rural water supply schemes and on the provision of water for irrigated agriculture in Asia. However, there are some innovative water projects in Latin America. In Brazil, for example, the 'Recovery of nutrients through integrated sewage treatment' has been effective in establishing a low-cost system for treating domestic and agricultural waste water which has led to replication by other municipalities. The project is very innovative in nature, testing and comparing alternative systems to recycle biomass nutrients. Water plants are used to purify waste water in a sequence of ponds. The remains of the plants are then used to fertilize the surrounding fields, where different agricultural products are grown for the local market. At the same time, the last ponds, containing purified water, are used for aquaculture. In this way, the project has managed to combine environmental protection with income-generating activities.

Another comparative project in India and China experiments with alternative low-maintenance waste water treatment systems.

Water research

The Fourth Research Framework Programme makes a significant contribution to research on water-related issues, through its specific Environment and Climate and International Cooperation Programmes, targeting intra-European research and scientific cooperation with developing and central and eastern European countries. Recently a special Task Force was created inside the Fourth

Research Framework Programme to promote inter-programme coordination on water and related issues. *Inter alia* the Task Force is trying to define environmental research priorities related to water, in consultation with all the relevant socioeconomic actors. The aim is to reinforce coordination between relevant Community, national and private research activities, and to stimulate an atmosphere favourable to innovation.

Scientific cooperation with developing countries

This area has been developed extensively under the Third and Fourth Research Framework Programmes. During the past five years, approximately ECU 25 million was provided to support around 60 joint research projects, involving more than 200 research teams in Europe and developing countries. Another 18 projects have been selected for funding in 1997 and will receive ECU 12.5 million.

These projects have studied all aspects of the conservation and sustainable use of water resources by agriculture, industry, urban centres and other uses. The issues covered include water harvesting and storage, irrigation and drainage, water use policies, enhancing the economic productivity of water across sectors, and waste water reuse and treatment. Particular emphasis is given to methodological development in resource management, in the prevention of pollution and risk avoidance and to integrated approaches to water utilization with a view to maximizing economic productivity and minimizing environmental damage.



Chapter 19

Environmentally sound management of toxic chemicals, including prevention of illegal international traffic in toxic and dangerous products

Agenda 21 identifies six programme areas where efforts need to be strengthened if the environmentally sound management of chemicals is to be achieved. These are: expanding and accelerating international assessment of chemical risks, harmonization of classification and labelling of chemicals, information exchange on toxic chemicals and chemical risks, establishment of risk reduction programmes, strengthening of national capabilities and capacities for management of chemicals, and the prevention of illegal international traffic in toxic and dangerous products.

European Community policy and legislation have incorporated these issues for over 30 years. With regular reviews and updates this has resulted in an effective and comprehensive system for the control of chemicals. However, work on the development of instruments for risk reduction, such as sharing of data and the establishment of an advisory committee on chemicals risk reduction, needs to be pursued in order fully to address Agenda 21. Continued involvement in international work is also important to ensure consistency of approach and to avoid duplication of effort. Further action is also needed in developing measures to ensure sustainable pesticides use.

The European Community system for risk assessment and classification

A uniform European Community system for the classification and labelling of dangerous substances has been in place since 1967. The system aims to provide the necessary information to enable the identification of a chemical, the evaluation of its risks and action to be taken in case of emergency.

A notification scheme for new chemical substances was established in 1979. Before being placed on the market for the first time, the substance must be notified to the competent authority of the Member State in which it is manufactured or into which it is imported. The notification must include data on the intrinsic hazardous properties of the substance and on the likely extent of exposure.

In 1991 a specific system was established for the assessment and authorization of plant protection products (agricultural pesticides) with a view to preventing risks to human and animal health and the environment. The European Commission has also made proposals for a similar system for the authorization and assessment of biocidal products (non-agricultural pesticides) and their active ingredients. This proposal is currently being considered by the other Community institutions.

The entry into force of the 1993 legislation on the evaluation and control of the risks of existing substances has put into place a crucial pillar of chemicals legislation by establishing a systematic programme for the risk evaluation of the 100 000 substances already on the European Inventory of Existing Commercial Chemical Substances.

This framework has been completed by a European Inspection Project and a 'Guidance manual' to Member States on the notification of new substances.

In addition the European Chemicals Bureau of the Environment Institute of the Joint Research Centre supports Community policy for the implementation of European Commission legislation in the field of chemical control with emphasis on dangerous and new substances.

International action on harmonization

The process of international harmonization of classification and labelling of dangerous chemicals relates to areas which are covered by Community legislation, in particular to Council Directives on the classification, packaging and labelling of dangerous substances and preparations, and Council Directives on the transport of dangerous goods by road and by rail.

The European Community and the Member States are therefore involved in international work on the harmonization of classification criteria and hazard

communication. In particular the European Commission is actively participating in the work of IOMC (International Organization for Sound Management of Chemicals) under the auspices of the International Programme for Chemical Safety (IPCS). The objective is to finalize the work of harmonization by 2000, as envisaged by Agenda 21. The European Commission also has a leading role in the OECD initiative on the harmonization of classification and labelling systems in relation to effects on human health and the environment and plays an active role in the UN/ILO Working Group in relation to physical and chemical hazards.

Information exchange on toxic chemicals and chemical risks

Exchange of information is one of the keys to controlling chemicals and assessing and reducing risks.

Prior informed consent

In 1992, the European Community adopted legislation on the export and import of certain dangerous chemicals. It established a common system of notification and information on imports from/exports to third countries, in accordance with the UN Prior informed consent (PIC) procedure. This legislation is mandatory, but the Community also participates in the voluntary FAO/UNEP PIC procedure.

The Commission organized a major Conference on International Trade in Dangerous Chemicals in 1995 to increase awareness of the PIC procedures. The Conference was held as a contribution to the preparation for the negotiations for an international legally binding instrument on PIC which were launched by a decision of the 18th Governing Council of UNEP in May 1995. The European Commission leads the Union's participation in those negotiations and has offered to host the fourth session with a view to completing the process before the end of 1997.

Voluntary initiatives

The European Commission participates in a number of information dissemination programmes. For example, the Commission and IPCS have jointly published approximately 900 information cards on chemical substances in several languages, out of a projected 2 000 cards for use at the workplace. The cards provide information on safety and health data relating to chemical agents for use in risk education and risk management activities at the workplace. The European Commission has also made publicly available the European Chemicals Information Database which contains data submitted by industry.

The establishment of risk reduction programmes

Action to reduce the risks that chemicals may pose to health and the environment can take many forms.

Specific legislation has been introduced by the European Community to protect employees and requires employers to carry out risk assessments of chemicals in the workplace. Once assessed, the legal framework provides for a risk reduction strategy which includes several steps to reduce exposure, such as replacement, enclosure, collective, preventative and protective measures, as well as personal protection equipment (as the least preferred option).

On the basis of risk assessments, a 1976 Directive provides that the marketing and use of substances and preparations within the European Community may be restricted where this is necessary for the protection of human health or the environment. A number of substances including asbestos, benzene and cadmium fall within this category. A similar Directive on the marketing and use of plant protection products prohibits or severely restricts the use in plant protection products of certain active substances which are assessed as being harmful to human or animal health or to have unacceptable adverse effects on the environment.

Community legislation on major accident hazards of certain industrial activities (the Soveso Directive) specifies activities for which those responsible are obliged to identify the potential for major accidents and to prepare 'on site' emergency plans. For installations at which specified substances are used, a notification has to be made to the relevant national authority which includes detailed information on the installation and the substances covered to enable 'off site' emergency plans to be made.

Persistent organic pollutants

Over the last few years there has been an increasing interest at international level in persistent organic pollutants (POPs). The Commission participates in the work of the two main regional forums which are already engaged in the development of strategies to control POP pollution — the 1992 Convention for the Protection of the Marine Environment of the North East Atlantic, and the 1979 UNECE Convention on Long-Range Transboundary Air Pollution, under which a Protocol on POPs will be established.

As described in Chapter 17, the European Community also participated in the Washington Conference on Marine Pollution from Land-Based Sources and played an active role in ensuring that the 19th Governing Council of UNEP held in February 1997 agreed to launch negotiations for a global Convention on POPs. The Community intends to play a full part in those negotiations which are due to be completed by 2000.

Strengthening of national capabilities and capabilities for management of chemicals

The European Commission is an active participant in, and a significant contributor to, the OECD programme on chemicals, pesticides and biotechnology. The European Union established the European Chemicals Bureau in 1993 to support operational work on chemical substances.

Internationally the Community has sponsored workshops in developing countries to improve overall chemicals management. The Community also supports a United Nations Institute for Training and Research (UNITAR) programme which assists developing countries and countries in economic transition to prepare national profiles assessing their legal, institutional and technical infrastructure for the management of chemicals. This is viewed as an important first step to strengthen national capacities and capabilities for the sound management of chemicals.

Capacity building also requires improved access to information. Accordingly the European Community has financed the compilation of a computerized database of pesticides used in the ASEAN region. It covers 7 039 commercial products and provides information on many topics, including official use recommendations, in relation to 522 crops and 2 380 pests. The database was prepared by a group of European research institutes in collaboration with the ASEAN countries themselves and UNDP/UNIDO's regional network on pesticides. A similar database was prepared by the same group of European institutes for 29 African countries and is available at CIRAD in France.

Prevention of illegal international traffic in toxic and dangerous products

While the main responsibility for control of compliance with chemicals legislation lies with Member States, the European Commission is promoting renewed emphasis on the enforcement of existing and proposed legislation in order to prevent illegal international traffic in toxic and dangerous products. Central to this objective is the strengthening of links between control authorities and customs services in Member States. The Commission also coordinates the development of guidelines for national control compliance programmes and has produced a manual on enforcement of the notification provisions for new substances. It is hoped that international organizations may also be able to facilitate better control by providing leadership in promoting dialogue between agencies responsible for chemicals control and customs services.



Chapter 20

Environmentally sound management of hazardous wastes, including prevention of illegal international traffic in hazardous wastes

Waste of all kinds is an issue that urgently needs to be addressed. However hazardous waste is a particular threat to the environment and to health. Agenda 21 identified the prevention of the generation of hazardous wastes and the rehabilitation of contaminated sites as key elements in achieving environmentally sound management of these wastes.

Within its overall waste strategy (described in Chapter 21) the European Community has implemented specific measures to deal with hazardous waste. The primary aim is to reduce the amount of hazardous waste and to prevent illegal international trafficking. Now that the strategy is in place the emphasis must be on effective implementation and on improving treatment and disposal facilities.

Promoting the prevention and minimization of hazardous waste; Promoting and strengthening institutional capacities in hazardous waste management

The European Community's overall waste strategy includes a system of monitoring and supervision of all establishments or undertakings which treat or dispose of wastes, and subjects them to a mandatory uniform system of permits. More stringent rules were adopted in 1991 relating to hazardous waste. These deal, for example, with the recording and identifying of sites where hazardous waste is discharged and the regulation of the incineration of hazardous wastes. In order to facilitate the implementation of the legislation, a list of hazardous wastes was established in 1994.

It has been estimated that the poorer regions of five Member States need collectively to spend ECU 47 million a year between 1993 and 2003 to ensure that their industrial and hazardous waste infrastructure conforms to Community directives. Support is being provided under the Structural Funds to help meet these needs. As a result, Spain, for example, has set itself the target of increasing the treatment of hazardous and toxic wastes in its Objective 1 regions from 0.5 million tonnes to 1.2 million tonnes.

The 1996 legislation on integrated pollution prevention and control is expected to contribute significantly to the reduction of the generation of hazardous waste by promoting the development and use of environmentally sound technologies and production methods.

Strengthening international cooperation in the management of trans-boundary movements of hazardous wastes and preventing illegal international traffic

Control of trans-boundary movements of hazardous waste is an important aspect of European Community waste management policy with the principles of self-sufficiency and proximity as the keys to the overall strategy. The basic Council Regulation on the supervision and control of shipments of wastes, within, into and out of, the European Union entered into force in May 1994. The Regulation transposed into Union law the relevant international agreements, in particular the Lomé IV Convention, the Basel Convention and the OECD Decision on the control of transfrontier movements of waste destined for recovery operations. The Regulation aimed to minimize waste movements destined for final disposal and to regulate the control of shipments of waste destined for recovery operations.

The Community took the lead in promoting further measures by the Conference of the Parties to the Basel Convention. In 1994, as a result of Community persuasion, the Second Conference adopted a Decision making a political commitment to prohibit exports from OECD to non OECD countries of hazardous wastes destined for both final disposal and recovery. The Third Conference decided to bring this Decision into the body of the Basel Convention by way of a new article. Although the necessary amendment will take some time to enter into force internationally, the Community has already taken unilateral steps to implement it. A new Regulation was agreed in December 1996 which confirmed the existing ban on exporting waste destined for final disposal outside the European Union and prohibited exports to non-OECD countries of hazardous waste destined for recovery operations from 1 January 1998. Such exports were already banned to ACP countries under the Lomé Convention.



Chapter 21

Environmentally sound management of solid wastes and sewage-related issues

Agenda 21 reaffirmed that environmentally sound management of wastes was among the issues of major concern in maintaining the quality of the environment and in achieving sustainable development.

Policy and legislation in Europe

European Community policy on sewerage and waste water treatment and the support given to enable poorer parts of the Union to meet standards set by its legislation are described in Chapters 17 and 18.

The European Union has identified the need to halt and reverse current trends in waste generation, in terms of both volume and environmental hazard and damage as one of the key tasks for the 1990s. The basic Waste Strategy was set in a Council Resolution adopted in May 1990 which focused on prevention, re-use, promotion of recovery, minimization of final disposal, regulation of transport and remedial action.

Following the adoption of the Strategy, the Framework Directive on Waste was amended in 1991. Under the Directive Member States must draw up waste management plans providing for the establishment of an appropriate network of disposal installations, enabling the Union as a whole to become self-sufficient in waste disposal. Member States must also take appropriate steps to encourage

the prevention or reduction of waste production and its harmfulness, in particular by:

- the development of clean technologies more sparing in their use of natural resources;
- the development and marketing of products designed so as to make no contribution, or the smallest possible contribution, to increasing the amount or harmfulness of waste and pollution;
- the development of appropriate techniques for the disposal of dangerous substances contained in waste destined for recovery.

In line with the Framework Directive, other legislation aims to avoid the creation of waste. For example the Eco-Label Award Scheme described in Chapter 4 includes assessment of the possibilities for recycling products and their characteristics as waste, when awarding eco-labels. The integrated pollution prevention and control legislation requires the establishment of limit values for emissions, based on the notion of best available techniques. The encouragement this will give to the development and use of environmentally sound technologies and production methods is expected to contribute significantly to the reduction of waste generation.

However not all waste can be prevented, and there is also specific Community legislation aimed at reducing the amount of waste produced or at encouraging its re-use. Directives adopted before Rio cover such matters as the reduction of pollution from municipal waste incineration plants, urban waste water treatment, and the use of sewage sludge in agriculture. Since Rio a major step forward has been made with the adoption of the 1994 Directive on Packaging which sets recycling and recovery targets for packaging waste for the period 1996 to 2001. It is intended that this will be reviewed to take into account the experience gained in the Member States, the findings of scientific research and the evaluation of techniques such as ecobalances.

In 1991 the European Commission complemented its legislative approach by initiating the Priority Waste Streams Programme to establish action plans for particular types of waste. This applied the objectives and principles of sustainable development, prevention and precaution, and shared responsibility to particular waste streams such as used tyres, end-of-life vehicles and health care waste. Each project group gathered together interested parties at Community level including the European Commission, Member States, producers, distributors, suppliers of materials, consumers and environmental organizations.

The Union has also played a constructive role in the Basel Convention and OECD expert groups, working on the identification of technical guidelines for the environmentally sound management of waste, and discussing research on cleaner waste treatment technologies with industry.

In November 1995 the European Commission presented a communication reviewing the implementation of the 1990 Waste Strategy and making proposals for further action. In December 1996 the Council passed a Resolution reacting to the review in which it recognized that in spite of the considerable efforts made since 1990, waste generation had continued to grow at Community level. The Resolution called for the better enforcement of existing legislation and the improvement of statistical data to allow more reliable comparisons of progress. It reiterated that the first priority should be waste prevention. The Resolution made recommendations on different methods of waste recovery and asked for follow-up to the Priority Waste Streams Programme. It recognized the need to complete the landfill network envisaged by the 1991 Directive and called for a proposal for a Community Landfill Directive. The Resolution also called on Member States to use a broad range of instruments, including economic instruments where appropriate, to meet their waste policy objectives.

Community support for urban waste infrastructure

As recognized by the 1996 Resolution, Member States continue to have difficulty in implementing the agreed Waste Strategy, not least because some regions lack the necessary infrastructure. It has been estimated that the poorer regions in five Member States need collectively to spend ECU 124 million a year from 1993 to 2003 to ensure that their urban waste infrastructure conforms to Community Directives. Some ECU 225 million will be provided from 1994 to 1999 under the Structural Funds to help the Objective 1 regions meet those needs. As a result, waste treatment facilities should be available to 70% of the population of the Italian Mezzogiorno compared with 50% at the start of the period. Ireland plans to increase the recycled portion of urban waste from 8 to 15% and stabilize discharges at 350 kg per year per household.

Support for urban waste management in developing countries

About ECU 50 million was committed to sewerage and waste water management projects between 1990 and 1995.

The European Community has financed several pilot projects relating to urban waste management. In the Mediterranean, for example, the need for a healthier urban environment has meant that priority has been given to the management of solid waste. Two projects financed in the Gaza Strip introduced waste collection services as well as sustainable waste treatment and landfill management. In addition, efforts were made to reduce and recycle household waste. An essential part of the programme was focused on environmental health education and implemented by local women.

Rubbish collection in one of the poorest local communities in Santiago de Chile is an example of an environmental project with a strong social component in Latin America. The project helps to organize local waste collectors (from the informal sector) in an association. It provides training to the waste collectors, thereby making the waste collection and sales more effective. Preliminary results show both an improved environment and higher revenues for the waste collectors.

Scientific cooperation with developing countries

Under the International Cooperation Programme the problem of urban waste management has been tackled in two complementary ways: first through looking for preventive and reuse solutions to the waste water problem (see Chapter 18), and secondly, by addressing the issue of solid waste management in urban centres with differing levels of economic activity.



Chapter 22

Safe and environmentally sound management of radioactive wastes

Agenda 21 set an objective of ensuring the safe management, transportation, storage and disposal of radioactive waste but did not really deal with other aspects of nuclear safety.

The European Union has had a comprehensive approach to nuclear issues since its inception, through the Euratom Treaty which was adopted at the same time as the Treaty of Rome. Euratom provides the foundation of policy for both the management of radioactive waste and nuclear safety issues. Basic safety standards, based on recommendations of the International Commission on Radiological Protection (ICRP) and the work of the UN Committee on the Effects of Atomic Radiation (UNCEAR), have been introduced and regularly updated since 1959. The European Union will continue to give consideration to improving basic safety in the light of future developments and continuing public concerns about the nuclear industry. The European Union is also devoting considerable resources to improving nuclear safety standards in the economies in transition.

Waste strategy

A European Community Radioactive Waste Plan of Action was set up in 1980 as a framework for the development of a coherent policy for waste arising within the nuclear industry. The plan required information to be given to

Community institutions on a regular basis on the situation of radioactive waste management and the promotion of cooperation between Member States on the development of waste disposal; on the approximation or harmonization of practices and policies; and on the provision of information to the public. As a result of the Action Plan, a Community Strategy for Radioactive Waste Management was adopted in 1994 and work is continuing on radioactive waste classification, on waste equivalence, and on waste with enhanced content of natural radionuclides. Work has also begun on issues related to the management of mixed radioactive/toxic waste, waste minimization, recycling and reuse of radioactive material in the nuclear sector, and methods of financing radioactive waste management and disposal.

The second Community Radioactive Waste Plan of Action (1993-99) takes forward the First Plan, continuing the main objectives but also broadening its scope. The Second Plan brings in radioactive waste arising outside of the nuclear industry, and industrial waste with enhanced concentrations of natural radionuclides.

The Union considers the safe disposal of nuclear waste to be a crucial issue. Through research activities, exchanges of information and legislation the Community is developing a consensus on common approaches and harmonization practices. At the same time it is essential to continue worldwide efforts to demonstrate viable methods for safe disposal of long-lasting and highly radioactive waste and to reinforce international cooperation in this field. Consideration will also have to be given to improved information, education and training.

Waste research

A Research and Development Programme for radioactive waste management and disposal was first launched in the mid-1970s and has since been renewed every five years. The objective of the series of Programmes is to contribute to the demonstration of a complete system for radioactive waste management which ensures the safety of the population and the protection of the environment throughout every phase of the operation and, in particular, during final disposal. The fifth and current Programme (1994-98) focuses on radioactive waste treatment, conditioning and disposal. Its priorities are waste quality control, decontamination and recycling of contaminated materials, as well as partitioning and transmutation of long lived radionuclides

Shipment of radioactive waste

A Directive on the supervision and control of shipments of radioactive waste was adopted in February 1992. The provisions of the Directive are based on the

International Atomic Energy Agency (IAEA) code of good practice on the international trans-boundary movement of radioactive waste and apply to shipments of radioactive waste between Member States as well as shipments into and out of the Community. The supervision and control system includes a compulsory and common notification procedure. Where radioactive waste enters and/or leaves the Community, the third country of destination or origin and any third country or countries of transit must be consulted and informed and must have given their consent. Similarly, the Directive contains a provision banning shipments to ACP countries, in accordance with the Lomé IV Convention.

Support for international action on nuclear safety

Developments in eastern and central Europe and in the New Independent States have continued to provide an impetus to European Union activities in the nuclear safety and radiation protection areas and to the increased awareness of the need to improve standards.

Through its cooperation programmes, PHARE and TACIS, the Community has built up the most important nuclear safety assistance programme in the world with the aim of reducing possible ecological and health risks. The objective is to support and, as far as possible, speed up domestic safety, enhance programmes in eastern and central Europe and the NIS. The work focuses on operational safety improvements (mainly through on-site assistance), near term technical improvements to plants (design safety studies and equipment deliveries to nuclear power plants), and the enhancement of regulatory regimes.

Commitments to projects for the period 1991 to 1995 totalled ECU 515 million including ECU 62.5 million for the European Union/G7 Action Plan for Ukraine aimed at early closure of the Chernobyl nuclear power plant. Loans under the Euratom Treaty are also available to projects aimed at improving the safety of nuclear installations.



SECTION 3

**Strengthening the role
of major groups**



Chapter 23

Major groups

Agenda 21 highlighted the inherent need for the involvement of all parts of society if the objectives of sustainable development are to be achieved.

Based on the twin principles of subsidiarity and shared responsibility, dialogue and partnership both within the European Community and with others have been fundamental to the Union since its inception.

The Community's legislative process involves both the Member States, through the Council of Ministers, and the directly elected European Parliament, who act on proposals made by the European Commission. In many areas of the Treaty, the opinions of the Economic and Social Committee, representing employees, trade unions and independent groups, and of the Committee of the Regions, representing regional and local authorities, are required before legislation is passed. The Parliament and the two Committees also have the right to give opinions on their own initiative, a right that they have used to tackle sustainable development issues. In many cases statutory advisory or management committees of Member States assist the European Commission in implementing the legislation that is passed. Informal committees may also have a role. For example, the informal Network of Enforcement Authorities allows the exchange of information, advice and cooperation on strategic issues between Member States and the Commission to further the enforcement of environmental law.

In addition to the structures established by the Treaty on European Union, the Commission consults a wide range of major group representatives when

proposing or implementing legislation. This is essential to ensure that proposals take due account of the diversity of the Union.

The European Consultative Forum on Environment and Sustainable Development

As part of the Fifth Environmental Action Programme the European Commission established a General Consultative Forum on the Environment in 1993 comprising representatives of business, trade unions, the academic community and non-governmental organizations. The Forum worked through dialogue to establish consensual opinions for delivery to the Commission on issues such as agriculture, transport, environmental liability and sustainable production and consumption. In 1995 the Forum agreed 12 Principles of Sustainable Development.

The successful experience over its first three years led the Commission to expand the Forum's mandate in February 1997 and renew it as the European Forum on Environment and Sustainable Development. The new Forum will have 32 members appointed on a personal basis and representing the whole Spectrum of European society, including regional and local authorities, business, trade unions, professional organizations and environmental protection and consumers' organizations.

The new Forum can be considered as the Community level equivalent of a national Sustainable Development Commission. The European Commission, with its broad range of contacts with National Commissions, was asked to host the November 1996 meeting of European Sustainable Development Commissions held in preparation of the March 1997 Rio + 5 Conference, which was in turn a major group input to the United Nations General Assembly Special Session. The European meeting identified a number of constraints to the implementation of sustainable development as well as examples of successes and drew lessons from good practice case studies.

Major groups and decentralized cooperation

One of the important amendments made in the revision of the Lomé IV Convention in 1995 was the introduction of Article 251 on Decentralized Cooperation. This recognized that decentralized public authorities, rural and village groups, cooperatives, trade unions, teaching and research institutions, NGOs and other associations all had a part to play in the long term development of ACP States and that strengthening the capabilities of such agents in ACP States was important for effective development.

Decentralized cooperation under the Convention takes the form of direct support to ACP agents themselves or support for partnerships linking them with similar organizations in the European Union. The initiative for decentralized cooperation has to come from the participants themselves whose organizations must be non-profit-making. Community support is limited to 75% of the cost or no more than ECU 300 000 per project. Decentralized cooperation programmes and projects are subject to the approval of the ACP State concerned and are financed from the Indicative Programme (regional or national aid allocation) or from counterpart funds generated, for example, via structural adjustment programmes.



Chapter 24

Global Action for women towards sustainable and equitable development

Discrimination against women was outlawed in the European Community's founding Treaty and the European Court of Justice has played a key role in the effective enforcement of these provisions.

The Community participated at the highest level in the Fourth World Conference on Women held in Beijing in 1995 and welcomed the progress made and the Platform of Action adopted there. Within the Community the Fourth Action Programme on Equal Opportunities (1996-2000) covers a number of the issues addressed in the Beijing Platform of Action.

The European Union is equally committed to enhancing the status, economic role and living conditions of women and ensuring that men and women participate and benefit equally in its development cooperation. The Communication from the Commission to the Council and European Parliament on integrating gender issues in development cooperation (COM(95) 423 final) stresses the crucial role played by women in the management of natural resources and their lack of access to decision-making on environmental strategies and interventions. Subsequently, the Council Resolution 12847/95 emphasizes that women's equal participation is indispensable for achieving development cooperation objectives, and establishes a strategy for mainstreaming gender issues throughout European Community development cooperation. Under the mainstreaming approach systematic attention would be paid to integrating gender issues in all policies, programming and projects. Special

attention should also be given to large-scale actions specifically addressing gender disparities.

The Council recognized that the gender perspective must be applied to macroeconomic policies since some costs weigh more heavily on women than on men, whilst budgetary restraints have often transferred costs from public social services to women. The Council called for the strengthening of the institutional capacity in partner countries on gender issues through the sensitization and training of policy makers, the collection of relevant data, and by reinforcing women-specific structures and gender expertise within government institutions. The need to promote legal literacy and the provision of information as well as to give priority support to civil associations promoting equal participation of women and men was also recognized.



Chapter 25

Children and youth in sustainable development

The Treaty on European Union contains no separate provisions on children and youth although a number of Community programmes assist young people, notably in helping them to pursue part of their studies in another Member States thereby fostering greater understanding and cooperation amongst Europe's youth.

The Community has supported public information campaigns aimed at young people and school curriculum development projects in both Europe and developing countries to promote environmental awareness. It has also assisted young people's own initiatives by co-financing NGO projects.



Chapter 26

Recognizing and strengthening the role of indigenous people and their communities

While Europe's population includes a small number of indigenous people, the Treaty on European Union contains no specific provisions on such groups although it does of course commit the Union to respecting the fundamental rights of all Europe's citizens.

Efforts are made in the European Community's development cooperation programmes to take account of the needs and concerns of indigenous people and some specific projects for them have received support. For example, the Community is financing a farming and ecological extension programme among indigenous people in the Peruvian Amazon region. This involves a decentralized training programme to promote sustainable techniques in tropical agriculture, health and nutrition and the rational management of resources. Emphasis has been placed on the active involvement of the indigenous population, particularly that of women who play a key role in protecting the cultural rights of the communities.



Chapter 27

Strengthening the role of non-governmental organizations: Partners for sustainable development

Dialogue with NGOs

Up to seven places on the European Consultative Forum on Environment and Sustainable Development are reserved for environmental protection and consumers' organizations, and the European Commission regularly consults NGOs on a wide range of issues.

Dialogue on the environment is helped by the existence of the European Environmental Bureau which brings together 134 organizations thereby allowing both large and small NGOs to participate at the European level. The European Commission also holds regular discussions with the seven largest environmental organizations in Europe. Modest support (ECU 1.1 million in 1994) is provided for the core funding of a few groups.

On the development side, the NGO Development Liaison Committee was established in 1976 to provide a link between a network of development NGOs and the European Commission. The Committee holds an annual conference bringing together many of the NGOs and the relevant services of the Commission.

NGOs formed part of the European Community delegation to the Rio Conference and to most sessions of the UN Commission on Sustainable Development.

Partnership with European NGOs

In addition to dialogue and core funding, the European Community also supports NGO projects.

In 1994 the Community contributed ECU 5.4 million to environmental awareness projects carried out in Europe. Projects which have received support range from a campaign for a 'Sustainable Europe', to an initiative to develop understanding about ecological tax reform and a meeting to seek NGO views on trade and environment before the First Ministerial Conference of the WTO.

Development NGOs have become major partners in the European Community's aid programmes to developing countries. The Community started co-financing NGO development projects in 1976 with a budget of ECU 2.5 million which grew rapidly, so that by the end of 1994 the cumulative total commitment topped ECU 1 000 million. About 40% of the cumulative commitment spent in developing countries went to Africa, 33% to Latin America, 18% to Asia, 5% to the southern Mediterranean and 5% to the Caribbean and Pacific. The level of support has continued to grow strongly since the Rio Conference so that the annual budget, which was ECU 110 million in 1992, reached ECU 174 million in 1995.

About 90% of the money provided for co-financing each year goes to a broad spectrum of projects in developing countries. The diversity of projects supported can be demonstrated with three examples:

- support via a Spanish NGO to a circus troupe in Brazil which brings debate on socioeconomic issues to isolated and often illiterate communities in Amazonia;
- co-financing with a Dutch NGO to help a group established by Cambodian women to counter the problems faced by the many female-headed households left by the war;
- modest assistance via an Italian NGO to provide the basic equipment for Mali's first free radio station.

Support can take two forms: either individual project co-financing where the European Community normally contributes up to half the cost and expects the European NGO partners to fund at least 15% from their own resources; or block grants to long-standing partners which are used to finance micro-projects.

Some 10% of the co-financing budget is used for projects in Europe aimed at increasing public understanding of development issues. By the end of 1994, ECU 96 million had been spent in this way.

While the co-financing budget is the flagship of the Community's relationship with NGOs, the organizations are essential partners in a range of cooperation programmes. Thus the ECU 145 million committed to co-financing in 1994

represented only 18% of the ECU 802 million channelled through NGOs that year. Over 40% of the total was for humanitarian aid and assistance to refugees, 20% took the form of food aid distributed by NGOs, and 8% (ECU 68 million) went to a special programme in South Africa initially set up to provide development support which by-passed the apartheid regime.

Support for developing country NGOs

The Lomé Convention has long included support for micro-projects whereby funds from national Indicative Programmes can be used to help local communities. Under Lomé IV, 75% of the cost or up to ECU 300 000 can be allocated from the European Development Fund to each micro-project. Where ACP States agree, NGOs can implement individual micro-projects or multi-annual programmes of such projects.

A specific instrument for support of sustainable development initiatives in developing countries is offered by the budget line 'Environment in developing countries' which was launched in 1982. This budget line has proved to be particularly interesting to NGOs.

Since the beginning of the 1990s, the overall objective of the environment budget line has been to contribute to the promotion of sustainable economic and social development, and to the protection of the environment and its natural resources, thereby improving the living conditions of the population in developing countries. The aim of Community action carried out under the environment budget line is to fund innovative pilot projects, to act as a catalyst and thus to maximize the capacity of existing budget instruments covering environmental cooperation. The 1997 appropriation is ECU 15 million, of which 50% is set aside for ALA/MED countries and 50 % to ACP countries. A regulation for the budget line will be adopted shortly.

Another special instrument for environment also widely used by NGOs is the tropical forest budgetline, which has existed since 1991. It has an annual appropriation of ECU 50 million and is available to countries in tropical regions. ECU 35 million is normally set aside for ALA countries with the rest going to ACP countries. The budget line supports operations that promote the conservation and sustainable management of tropical forests, and their associated biological diversity.



Chapter 28

Local authorities' initiatives in support of Agenda 21

According to a survey conducted by the International Council for Local Environmental Initiatives, 1 119 Local Agenda 21s had been started by the end of November 1996 in the 15 countries of the European Union. This represented 62% of the world total of 1 812 Local Agenda 21s in 64 countries.

Regional and local authorities were given a formal role in the European Community institutions in 1992 when the Treaty on European Union established the Committee of the Regions. This comprises 222 elected members of local and regional authorities, and an equal number of alternates, who are nominated by Member States and appointed by the Council. The Treaty provides for the Committee to be consulted, in order to give its opinion, on proposals in the fields of economic and social cohesion; trans-European networks; public health; education, vocational training and youth; and culture. The Committee is also informed of any proposal on which the opinion of the Economic and Social Committee is sought and may also be consulted on other issues where relevant. In addition the Committee has the right to draw up opinions on its own initiative.

The Committee of the Regions works through specialist Commissions, one of which focuses on planning, environment and energy.

In 1995 the Committee issued an opinion on the role of regional and local organizations in the partnership underlying the operation of the Structural Funds. The Committee found that local and regional authorities were more

involved in the monitoring of the 1994-99 programme than they had been in the previous five years. However, the Committee noted that the 1993 revision of the Structural Fund Regulations had not guaranteed the authorities' involvement, by expressly requiring that they be included in the Monitoring Committees which are established for each Structural Fund programme. Any such amendment to the Regulations would need to take account of the great diversity in institutional structures across Europe and in particular of the wide variation in the size of population covered by individual authorities.

In addition to their institutional role, regional and local authorities are important partners in the actual implementation of the Structural Funds and in European Community efforts to increase environmental awareness. Local authorities have a crucial role in the Urban Initiative and the Sustainable Cities Campaign described in Chapter 7 as well as in the Leader Initiative set out in Chapter 14.

The European Union successfully pressed for the innovative role local authorities played in the Habitat II Conference held in Istanbul in June 1996 and greatly welcomed the important contribution they made.



Chapter 29

Strengthening the role of workers and their trade unions

Employees have one third of the 222 seats in the European Community's Economic and Social Committee which, in accordance with the Treaty, provides opinions on a wide range of legislative proposals. The Committee can also draw up opinions on its own initiative, and delivers an average of 170 opinions in total a year. The employees' seats on the Committee are usually filled by trade union representatives.

Trade unions will have up to three seats on the European Consultative Forum on Environment and Sustainable Development.

Workers and their representative trade unions play an important role in the European Commission's formal and informal consultations on the preparation and implementation of Community law. For example, they have made positive contributions to the formulation of health and safety provisions. Consultation is made easier by the existence of strong trade union organizations at the European level.

The European Community also works with trade unions to promote environmental awareness. For example, finance was provided to the European Trade Union Congress for the development of environmental information packages and training aids in all languages which have been widely distributed to ETUC members throughout the Union. A Danish Union is being assisted to undertake extensive research into the question of 'green jobs'.

The Treaty on European Union brought in a new provision, the Protocol on Social Policy, usually known as the Social Chapter, which allows 14 Member States to use the Community Institutions to implement their Agreement on Social Policy. This aims, *inter alia*, to promote employment, improve living and working conditions, ensure social protection and promote dialogue between management and labour in a way that complements action by the Member States. Legislation has been adopted under the Protocol on the establishment of consultation arrangements at European level for companies which employ significant numbers of workers in more than one Member State.



Chapter 30

Strengthening the role of business and industry

Employers also have one third of the 222 seats in the European Community's Economic and Social Committee. The remaining third are filled by representatives of other interests including farmers, small and medium-sized enterprises, the professions, consumers, the scientific and teaching community, cooperatives, families and environmental movements.

Dialogue with business and industry is essential in the preparation of legislative proposals. This is made easier by the existence of strong business organizations and specific industry groups at the European level. The European Commission also has regular dialogue with Europe's major companies. However, the need to step up contact with small and medium-sized enterprises and to assist them to move to more sustainable development pathways is fully recognized. The work of the Euro Info-Centres described in Chapter 9 is important in this respect.

Further development of this dialogue and the promotion of policy instruments based on cooperative approaches with business and industry, such as environmental agreements, will contribute to the development of a more proactive industry approach towards the environment.



Chapter 31

Scientific and technological community

Support through the Research Programme

An overall description of the European Community's Research Framework Programme is given in Chapter 35.

The Community's Research Framework Programme amounts to less than 5% of total non-military publicly financed research in the European Union. However, by its very nature the Programme covers not only the entire Union but also involves researchers in developing countries, economies in transition and some industrialized countries. European Community research has a special role in strengthening the scientific and technological community.

As research becomes increasingly complex at a time of budgetary stringency, working at the European level can be especially important in attaining a 'critical mass' especially in advanced technology sectors, and in carrying out measures complementing those of the Member States. The requirement that work funded under the framework must involve researchers in at least two Member States, helps to bring together a wide range of skills and experience and thus enhances the capacity of participating institutions. This approach also serves to spread the risks and the increasingly elevated costs of developing new technologies.

The Fourth Research Framework Programme also contains specific Programmes aimed at strengthening the scientific community. One of its four fundamental activities is the stimulation of training and mobility of researchers and ECU 792 million (or 6% of the total Research Framework budget) was

allocated to this end at the start of the programme. Another key activity is the dissemination and optimization of results so as to ensure the widest possible spread and application of knowledge. Some ECU 352 million (2.7 % of the budget) was allocated to this task.

The International Cooperation Programme under the Research Framework plays a key role in preserving and strengthening capacity in both developing countries and economies in transition.

The promotion of direct linkages between researchers and scientific institutions in Europe and developing countries has resulted in thousands of joint research proposals being presented to the European Commission in the past three years. Of these, hundreds of joint projects were funded, mobilizing several thousand scientific groups on both sides. Furthermore, many hundred post-doctoral fellowships in Europe were awarded to scientists from developing countries and of course most research projects include post graduate training projects.

Funding has also been provided to allow scientists in economies in transition to spend short periods in other countries and to support networks linking scientists. A special programme INTAS was created in 1992 to help scientists in the NIS remain in their laboratories at a time of acute economic restructuring.

Socrates and Leonardo

These major European Community programmes finance periods of study in other Member States for Union trainees, students and university staff in all disciplines. They are complemented by additional schemes which extend the coverage to the countries of eastern and central Europe and the Union's other European neighbours. They also promote networks, twinning arrangements and joint projects between participants, thus building capacity not least by widening the experience of young scientists.



Chapter 32

Strengthening the role of farmers

European agricultural policy planning and decision making is based on transparency, and representatives of farmers' organizations are able to present their views within the relevant advisory structures.

A Regulation adopted in 1991 on improving the efficiency of agricultural institutions provides assistance to agricultural associations and contains specific measures to assist young farmers. As a result substantial sums (ECU 198 million in 1994) have been provided from the Structural Funds to assist young farmers to take charge of agricultural holdings thereby combating the trend towards an ageing farming population in Europe.

The Leader programme described in Chapter 14 also provides help for strengthening farmers groups, notably by cooperation and the exchange of experience between groups across the Union.

The agricultural research programme under the Fourth Research Framework Programme helps to develop and disseminate environmentally sound and economically viable agricultural techniques to farmers.



SECTION 4

Means of implementation



Chapter 33

Financial resources and mechanisms

The crucial question of financing sustainable development was addressed in a key chapter of Agenda 21 which concentrated on the needs of developing countries and economies in transition and identified the need for new and additional resources for tackling global environmental problems.

The European Community has managed to continue to increase its overall development assistance to third countries since 1992 and has given increasing attention to the quality of that aid and to its contribution to sustainable development. There have also been strenuous efforts to integrate environmental concerns into the internal policies of the European Community. This chapter gives details of the financial resources and priorities of the main domestic and international programmes for sustainable development.

Financing sustainable development within the European Union

Structural Funds

The primary objective of the Structural Funds is to promote better balanced socioeconomic development and improve cohesion within Europe. The Funds are targeted on the weakest regions of the European Union, and on problems of unemployment and structural adaptation in industry and agriculture. In all, ECU 152 000 million at 1994 prices will be made available from the Structural Funds to the 15 Member States in the period 1994 to 1999. With the Cohesion Fund

as well (see below), allocations for structural policies will absorb one third of the European Community budget or 0.45% of Community GDP annually.

There are now six main objectives for the Structural Funds. Objective 1, which will receive 68% of the Funds allocated by objective, supports regions whose development is lagging behind and which have a per capita GDP of less than 75% of the Community average. Objective 2, which will receive 11%, is for regions worst affected by industrial decline. The two social development programmes, Objectives 3 and 4, which focus on long term and youth unemployment, and the adaptation of workers to industrial change, will receive 9% and nearly 2% respectively. Objective 5 is divided into the regional programme for vulnerable rural areas, Objective 5b, which will receive 5% and Objective 5a which promotes adjustment in the agricultural and fisheries sectors and will receive over 4% of allocations. Objective 6 which was introduced in 1995 to provide support for the very sparsely populated arctic areas of the new Member States, will receive 0.5%. Together the six objectives will receive 90% of total Structural Funds while the rest will be allocated almost entirely to programmes known as Community initiatives which tackle specific problems which are found across the Union.

Following the 1993 review of the Structural Funds, a series of key amendments were made to the Fund Regulations to strengthen the integration of the environmental dimension in the programming process. Environmental objectives now have to be considered systematically in all programming documents and environmental profiles of the area covered have to be prepared for all regional programmes. National environmental authorities must be involved in the development and monitoring of programmes, and environmental indicators are used as part of programme evaluation.

In November 1995, the European Commission adopted a Communication on Cohesion Policy and the Environment, reviewing past performance and making proposals for future action by both the Structural and Cohesion Funds. The Communication stressed the complementarity of resource conservation and sustainable socioeconomic development. It found that a high quality environment had been a factor in attracting investment to the poorer and more peripheral parts of the Union and that activities related to the environment could be a substantial source of new jobs. The Communication noted that the Funds had an important role in promoting environmental assessment of programmes and projects. The Communication also highlighted the role of the Structural Funds in helping poorer Member States to improve their environmental infrastructure particularly in order to meet Community standards in sectors such as the protection and management of water resources, waste water treatment and the collection, treatment and recycling of waste.

Following the Communication, the 1995 Annual Report on the Structural Funds also had an environmental theme and gave further details of the Funds' role in

environmental protection. The Funds play an important role in actions to clean up coastal areas and river basins, rehabilitate old industrial sites and upgrade deprived urban areas. In addition to these curative measures, the Funds finance preventative measures including incentives to promote environmentally-friendly technology, especially in small and medium-sized enterprises, and provide support for renewable energy, energy conservation, public transport and environmental training.

The following table shows the allocation of the Structural Funds by objective and gives details of expected commitments to environmental programmes under the regional objectives. The latter figures should be regarded as minima since they are based on rather strict definitions of the scope of environmental programmes.

Cohesion Fund

The Cohesion Fund was established for the 1993-99 period to help those Member States with a national GNP per capita of less than 90% of the European Union average. The Fund intervenes exclusively in two sectors: transport, where the emphasis is on Trans-European Networks, and environment where support is primarily aimed at enabling Cohesion countries to implement European Community legislation. Spain, Portugal, Greece and Ireland qualify for Cohesion Fund support and the total sum available for the period 1994 to 1999 is ECU 14 454 million in current prices. Over that period ECU 7 192 million or almost 50% of the total will be used for environmental purposes. Particular emphasis is being given to water supply and waste water treatment projects, although solid waste management and schemes to combat erosion and prevent forest fires have also received support.

LIFE

LIFE was established in 1992 and is designed to contribute to the development and implementation of Community environmental policy and legislation. Unlike other Community financial instruments it can provide aid both throughout the Community and in neighbouring regions, making it well placed to tackle trans-boundary environmental issues. Now in its second phase, with a budget of ECU 450 million for the period 1996 to 2000, the focus is on the priority areas of nature and habitat conservation; preparation and implementation of Community legislation; the integration of environment into industrial activities; help to local authorities to integrate environmental requirements into regional activities; and measures for countries from the Mediterranean, the Baltic and central and eastern Europe. While resources are modest in relation to the sums available through the Structural and Cohesion Funds, LIFE plays an important catalytic role.

Structural Funds 1994-99

Allocations million ECU in 1994 prices			
	Total allocations	Allocated to the Environment	%
Objective 1 Regions whose development is lagging behind	93 972	8 328	8.9%
		of which	
		Sanitation & water distribution	84%
		Industrial and urban environment, nature protection	13%
		Waste collection and treatment	3%
		Research, training, other	1%
Objective 2 Regions worst affected by industrial decline	15 352		
	1994-96 7 305	397	5.4%
		of which	
		Decontamination, waste treatment & clean technology	53%
		Rehabilitation of industrial sites and the urban environment	41%
		Training and other	6%
Objective 3 Long term and youth unemployment	12 938	n.a.	
Objective 4 The adaptation of workers to industrial change	2 246	n.a.	
Objective 5a Agriculture Structural adjustment in the agricultural sector	5 251	n.a.	
Objective 5a Fisheries Structural adjustment in the fisheries sector	885		
Objective 5b Vulnerable rural areas	6 860	721	10.5%
		of which	
		Environmental management, landscape and biodiversity	56%
		Decontamination, industrial waste treatment, clean technology	30%
		Forestry development	14%
Objective 6 Very sparsely populated Arctic regions	697	n.a.	
Total allocations for Objectives 1-6	138 201		
Community initiatives	14 018		
Grand total	152 219		

Research and technological development

Details of the European Community's ECU 13 100 million Fourth Research Framework Programme which covers the period 1994 to 1998 are given in Chapter 35. Sustainable development is a horizontal theme in most areas of research funded under the Framework and a recent internal study done by the European Commission suggested that up to 17% of the total Fourth Framework Programme had been allocated to environmental purposes. This figure included two specific environmental research programmes covering environment and climate, and marine science and technologies which have a combined budget of ECU 1 150 million. The Fourth Framework also includes a ECU 147 million Socio-Economic Research Programme. These three programmes are targeted on European research priorities. In addition there is a ECU 575 million International Cooperation Programme for joint research with third countries in which environmental research is a significant focus of support.

Financing sustainable development outside the European Union

The development policy of the European Community was incorporated in its basic texts for the first time in 1992, in the Treaty on European Union. Details of the Treaty provisions and a broad overview of the subsequent evolution of development policy is given in Chapter 2.

The Community and its 15 Member States provide more than 50% of world development aid. That aid represented more than 0.38 % of Union per capita GNP in 1995, well above the Development Assistance Community (DAC) average of 0.27%. The share of European Union aid channelled through the Community itself has increased from 7.7% in 1972 at the time of the Stockholm Conference to 14.8% in 1992 and 17% in 1995.

The increasing share and the expansion in its membership means that the Community has had one of the fastest growing aid programmes in recent times. The disbursement of Official Development Assistance increased by 19% in ECU terms between 1992 and 1995 and by 20% in dollar terms although disbursements fell back in 1996. Figures on the total volume of aid since 1992 are given in the table below. By 1992 the European Community had become the fifth largest donor in the Development Assistance Community and the second largest multilateral donor after the International Development Association of the World Bank, a ranking it retains to this day.

Total European Community aid for developing countries

Official Development Assistance		1992	1993	1994	1995	1996
Net disbursements		<i>Million</i>				
Total at current prices	ECU	3 477	3 386	4 054	4 131	3 845
Bilateral	ECU	3 211	3 105	3 639	3 614	n/a
Multilateral	ECU	345	281	415	516	n/a
Total at current prices and exchange rates	USD	4 501	3 966	4 825	5 398	4 881
Bilateral	USD	4 156	3 637	4 331	4 723	n/a
Multilateral	USD	345	329	494	675	n/a
Total 1993 prices and exchange rates	USD	4 397	3 966	4 631	n/a	n/a
Bilateral	USD	4 060	3 637	4 157	n/a	n/a
Multilateral	USD	337	329	474	n/a	n/a
Commitments						
Total in current prices and exchange rates	USD	6 199	5 851	7 244	7 642	5 955
Bilateral	USD	5 844	5 129	6 668	6 740	n/a
Multilateral	USD	354	722	576	902	n/a

The Community's aid is highly concessionary with nearly 98% provided on grant terms. About 90% of European Community aid is channelled bilaterally with most of the rest taking the form of multilateral food aid and emergency aid. Food aid in both cash and kind used to play a major part in the Community's overall aid effort, representing about a quarter of all aid in the 1980s; in recent years that has fallen to something closer to 10%. Emergency aid has been another major component of assistance and has absorbed a greatly increased share of resources since 1992, peaking at over 14% of total aid in 1994 and still accounting for more than 10% in 1995 compared with only about 1% in the late 1980s.

An average of 37% of European Community aid in 1994 and 1995 went to the UN's list of least-developed countries, a figure well above the average of all DAC states who allocated 25% of their aid to these countries. The Community spent a further 14% on other low income countries with a GNP per capita of less than USD 675 in 1992 and here its performance was well below that of DAC members who averaged 33%. The Community spent an average of 43% of its aid for 1994 and 1995 on lower middle income countries (with a per capita GNP of USD 676 to USD 2 695).

The following sections describe the European Community's main aid programmes to different groups of developing countries. An overall evaluation of Community aid and details of the level of environment funding follow these regional descriptions.

The Lomé Convention with the African, Caribbean and Pacific States

The European Union has a long-standing and fruitful relationship with the ACP States. This has its expression through the series of Yaoundé and Lomé Conventions, the first of which was signed in 1963. The series of Lomé Conventions started in 1975 and cover both aid and trade matters. At present the Convention represents about 40 to 45% of annual Community aid, although its share has decreased as the Community has also reached out to other developing countries. Lomé IV covers 70 countries including most of the independent States in the Caribbean and Pacific regions and all of Sub-Saharan Africa, except South Africa with whom a special relationship linked to Lomé is currently being developed. Funding for the Lomé Convention is not part of the European Community budget but is provided separately by the Member States through the European Development Fund (EDF) and via subsidized loans from the European Investment Bank (EIB) which contributes about 10% of Lomé resources.

While earlier Conventions were agreed for five years, Lomé IV was approved for the period 1990 to 2000 subject to a mid-term revision and a new Financial Protocol which were agreed in 1995. The Convention's strategic objective is achieving a 'sustainable balance between economic objectives, the rational management of the environment and the enhancement of natural and human resources'. As with all the Community's cooperation agreements, respect for human rights is regarded as an essential element of the accord. For the first time Lomé IV introduced a specific chapter on the protection of the environment into the Convention, making it one of the agreed areas of cooperation. The agreement also banned the shipment of hazardous and radioactive wastes to ACP States.

The 1995 revision also introduced a Protocol on Sustainable Management of Forest Resources into the Convention. This builds explicitly on the Rio Declaration, the Conventions linked to UNCED (Climate Change, Biodiversity and Desertification) and the Rio Statement of Forest Principles. A manual to assist European Commission staff both to put the Forest Protocol into effect and to implement forest projects in other regions was issued in 1996.

Total funding for the first period (1990-95) of Lomé IV was set at ECU 12 000 million which represented a 45% increase in nominal terms over Lomé III. The 1995 revision agreed a further 21% increase to ECU 14 625 million for the period 1995 to 2000. ECU 12 967 million will be provided through the EDF 8

and ECU 1 658 million from the EIB. As part of the revision, the Community also agreed to transform all the unspent highly concessional special loans from earlier Conventions into grants.

Lomé aid operates through a number of different instruments. These include some unique to Lomé, such as Stabex (14% of EDF 8), a scheme for the stabilization of ACP export earnings from a number of agricultural commodities, and Sysmin (4%), a similar scheme for minerals exports. Some 8% of EDF 8 will be provided as risk capital to help overcome the shortage of start up finance for potentially profitable ventures in ACP States. Lomé IV introduced support for structural adjustment and 11% of EDF 8 will be available for this.

However, the bulk of Lomé resources are channelled through National and Regional Indicative Programmes (N/RIPs) which identify key areas of support. Eleven ACP countries and all seven regions have made environmental protection a focal area in their 1995-2000 Indicative Programmes and environmental integration in other priority sectors is mentioned in 20 NIPs. These programmes can draw on environmental profiles which have been prepared for 40 African countries.

As explained in Chapter 2, in November 1996 the European Commission issued a discussion document, known as the Green Paper, on future relations with the ACP countries. This argued that greater priority had to be given to promoting the integration of the ACP economies into the global economy, that aid in the social sphere should be stepped up, that protection of the environment should also be given greater prominence in Community aid and that the European Union could play a more active role in institutional development.

Asian and Latin American States (ALA)

European Community financial and technical cooperation support for Non-Associated Countries (ie those not linked through Lomé or the Mediterranean Agreements) started in 1976 when some 40 countries were declared eligible. Some of these have since joined Lomé and the focus of the programme is now exclusively on Asia and Latin America with priority being given to the poorer countries. The ALA programme, which is additional to other aid to these regions, such as food aid, support through NGOs and emergency help, is provided through the Community budget. Allocations are made annually, but in 1990 it was agreed to establish a five year planning figure to allow better programming of ALA support and this was set at ECU 2 750 million for the period to 1995. A planning figure of ECU 4 685 million has been agreed for 1996 to 2000. Annual disbursements have accounted for about 10% of the Community aid budget since 1990 with about 40% of that going to Latin America and 60% to Asia.

The Council agreed a new ALA regulation in 1992 which specifies that at least 10% of aid to Asia and Latin America should be spent on meeting environmental needs. This target has been exceeded as is explained in the section on the environmental evaluation below.

Use of the ALA programme is governed by the 1992 regulation and by more recent strategies which the European Commission has adopted in relation to both Asia and Latin America.

The strategy for cooperation with Asia was adopted in 1994 and includes amongst its priorities contributing to sustainable development and to poverty alleviation in the least prosperous countries of Asia. The activities to be undertaken include strengthening higher education and training links, promoting decentralized cooperation between civil society in Asia and Europe, scientific cooperation and research, environmental protection and support for the private sector. Since the overall strategy was adopted, further strategy documents related to energy and to the environment have been prepared. Both the energy strategy and the national strategy for India recognize the importance of helping Asian countries to participate in global efforts to reduce CO₂ emissions.

The strategy prepared for Latin America in 1996 has three main priorities for cooperation; management of north/south interdependence; the fight against poverty; and economic reform and international competitiveness. All the Community's cooperation agreements with individual Latin American states and with regional groupings contain specific sections on the environment. For example the 1993 regional agreement with the Andean Pact makes environmental protection, sustainable management of natural resources, and conservation of biological diversity the three priorities for cooperation. A country-specific strategy on the environment has also been developed for China.

A 'Europe-Asia strategy in the field of environment' is currently under preparation. This strategy seeks to identify key measures in Europe-Asia environmental cooperation, in areas where it is felt that Europe has special experience, know-how and expertise to offer.

In addition to the ALA budget, agreement was reached in 1992 on extending EIB loans to the two regions and ECU 250 million a year was allocated for an initial three year period.

Mediterranean (MED)

Cooperation with the Mediterranean countries outside the European Union dates back to 1958. Over time Association Agreements were signed with the individual Maghreb and Mashreq countries as well as with Turkey, Cyprus

and Malta. These mostly governed trade relations, but also provided modest amounts of development assistance through multi-annual financial protocols.

In 1990 the Community adopted an action programme to strengthen and increase the level of financial resources available to the region and to promote economic reform. While most of the aid was for traditional projects, the action programme included a number of innovative regional initiatives, for example tackling urban issues, promoting higher education links and strengthening the local media. A five year aid package of ECU 2 375 million was allocated to implementing the action programme in eight Maghreb and Mashreq countries and for economic cooperation with Israel. As a result of the action programme, support to the Mediterranean rose from an average of less than 5% of Community aid to 10% in 1993. The programme included ECU 105 million for interest subsidies on 600 million ECU's worth of environmental lending by the EIB.

At the end of 1995 cooperation with 11 countries and the Palestinian Authority was further strengthened by the adoption of the Euro-Mediterranean Barcelona Declaration. The Declaration outlined three areas of partnership and established a work programme to implement them. The Political and Security Partnership was to define a common area of peace and security while the Economic and Financial Partnership was to build a shared zone of prosperity and the Social, Cultural and Human Partnership was to develop human resources. The partners committed themselves to sustainable socioeconomic development and to the gradual establishment of a free-trade area by 2010. They stressed the need for regional economic integration and underlined their environmental interdependence. The European Union confirmed its willingness to make ECU 4 685 million available from the Community budget for the period 1995 to 1999 to support the partnership.

The agreed Work Programme covers some 20 areas of activity including environment, transport, energy, fisheries, science and technology, water and land-use planning. Ministers agreed that cooperation on water was a major priority. They undertook to prepare a short and medium-term programme of action on environment dealing, *inter alia*, with integrated management of water, soils and coastal zones, and the prevention of atmospheric pollution. Energy cooperation was to focus on energy efficiency, renewable energy and environmental questions.

The specific Environment and Tropical Forest programmes

In addition to its main regionally based programmes, the European Community has a number of thematic aid programmes often established at the behest of the European Parliament.

One of these, Environment in Developing Countries, was first established in 1982 with very limited funding. The budget grew substantially in the 1980s and peaked at ECU 26 million in 1993, before falling to million ECU 15 for 1996. The overall objective of the programme is sustainable development and it concentrates on integrating the environmental dimension into development often through small-scale participatory pilot projects. Latin America and the Mediterranean have been the main beneficiaries while the leading sectors have been urban environment and the protection of biodiversity. In 1996 the programme financed a major study of the environmental effects of structural adjustment carried out by an NGO. A Regulation setting out orientations for the programme was due to complete its legislative passage by mid-1997.

The Regulation on Operations to Promote Tropical Forests was adopted in December 1995. This formalized a programme which started in 1991 and has been allocated approximately ECU 50 million a year since 1992; a level of commitment which is due to continue until 1999. More than half of total resources to date have been allocated to Latin America, while ACP received a quarter and Asia 16% of the budget. Support has been given to capacity building, institutional reform, projects involving local people, research, forest monitoring and fire prevention.

The 1995 Development Assistance Committee Review of European Community aid

Considerable efforts have been undertaken since Rio to improve the quality of European aid. The progress made in aid management since its last review in 1991 was recognized in the 1995 OECD Development Assistance Committee review of European Community cooperation programmes. The Committee characterized the Community's aid programme as having distinctive and ambitious goals and noted that it was expanding faster than that of most DAC donors. The Committee welcomed the introduction of an integrated approach to project cycle management based on logical framework analysis which is to be applied to all aid projects and programmes as well as the training provided for staff in these techniques and the expansion of the European Commission's capacity to evaluate the implementation of aid.

While accepting that progress had been made since 1991, the Committee considered that further attention needed to be paid to elaborating country strategies to ensure all of the Community's aid instruments were integrated towards common goals. The strategies for Asia and Latin America and the Green Paper on future relations with ACP States demonstrate the European Commission's determination to continue to improve strategic thinking.

The Committee also expressed concern that while some of the staffing constraints identified in the 1991 review had been addressed through increased staffing levels, shortages remained with respect to key cross-cutting issues such as participatory development, poverty alleviation, gender, population and environment.

Since the review the European Commission has continued to make efforts to tackle this issue and has provided further guidance manuals and training to promote the mainstreaming of cross-sectoral concerns so that they become the responsibility of all staff. Environmental manuals for projects financed from Lomé and from the Community budget have been drawn up since Rio and staff have received training in their use. A new set of guidelines stressing the integration of environment and development was prepared to assist in the programming of EDF 8. Equally guidance notes have been prepared on key global environmental problems such as desertification, climate change and biodiversity to explain their relevance to development cooperation. The Council adopted a resolution on Environmental Impact Assessment in June 1996 and discussion is underway with the Member States on follow-up action.

The evaluation of the environmental performance of European Community programmes in developing countries

An evaluation was commissioned in January 1996 with the objective of identifying opportunities to improve the integration of the environmental dimension of the Community's cooperation with developing countries, and to enhance support for environmental priorities. The evaluation which is due for completion in the course of 1997 also assessed the amount of aid going to environmental projects in the ACP, ALA and Mediterranean States. The first phase of the study which looked at 70 environment projects and at the operation of environmental policy in other projects, including through an analysis of 10 environmental appraisals, was completed in December 1996. A series of field visits to six countries is now underway. A complementary evaluation of support for tropical forests has also been launched.

The evaluators experienced considerable difficulty in drawing up an inventory of environmental projects financed by the Community because of the lack of standard definitions for classifying such projects. Indeed, the figures for all multilateral and bilateral donors produced by the OECD for the Commission on Sustainable Development do not really identify environmental aid as such. Instead the CSD figures give details of all aid broken down by the broad themes of Social and economic dimensions, Conservation and management of resources, Strengthening the role of major groups and Aid for the means of implementation, which are then further subdivided into sectors and themes such as energy, transport, combating desertification or

science. Only 15 categories within some subdivisions are included in the OECD's *pour memoir* figure for environmental protection. These completely exclude spending on major environmental priorities such as education, renewable forms of energy, forests (except in relation to natural reserves) or sustainable agriculture.

The evaluators drew up the inventory on the basis of their own definitions of primary and secondary environmental projects. Primary environmental projects were defined as those whose purpose and activities are aimed at achieving environmental improvements or managing and conserving natural resources. All projects under 21 OECD codes were included in the primary projects while a further analysis was made of projects under another 17 OECD codes before deciding on their inclusion. Secondary environmental projects were defined as those economic sectoral projects which incorporated funding directed towards specific environmental activities. The inventory only took account of the environmental component.

The inventory looked at expenditure on environmental projects financed by the EDF, the ALA and Mediterranean Programmes and the specific environmental and tropical forest budgets in the period 1990 to 1995. Summary details of the findings are given in the tables below which show, *inter alia* that disbursements on environmental projects have increased steadily over the five years. The overall figure for cumulative primary and secondary environmental disbursements represented 5% of total disbursements from the relevant programmes while the commitments represented 8.5% of the total allocated between 1990 and 1995.

Inventory of funds disbursed and committed to primary and secondary environmental projects by region 1990/95

	Disbursed		Committed	
	MECU	%	MECU	%
Africa	221	39	229	17
Caribbean	49	9	105	8
Pacific	6	1	9	1
Latin America	91	16	255	19
Asia	89	16	596	45
Mediterranean	76	13	112	8
Horizontal	33	6	33	2
Total	565	100	1 339	100

Inventory of funds disbursed and committed to primary environmental projects by theme 1990-95

	Disbursed		Committed	
	MECU	%	MECU	%
Land resources	143	32	209	24
Tropical forests	108	24	307	35
Biodiversity	47	10	60	7
Urban environment	40	9	94	11
Institutional strengthening	32	7	82	9
Climate change	31	7	5	1
Marine resources	19	4	40	5
Freshwater resources	13	3	29	3
Technology transfer	10	2	30	3
Pollution control	10	2	12	1
Primary environmental project total	452	100	869	100
Secondary environmental project total	113		470	
Grand total	565		1 339	

Inventory of disbursement and commitments on primary environmental projects by year

	(MECU)						
	1990	1991	1992	1993	1994	1995	Total
Disbursements	25	39	76	106	115	92	452
Commitments	44	45	143	273	169	195	869

While the inventory was less restrictive than the OECD's approach for CSD, it was still very prudent in classifying environmental projects and thus excluded many programmes, notably in sustainable agriculture, previously considered as environmental. The inventory also excluded all Community support through the research budget or from PHARE and TACIS. A more

comprehensive assessment of environmental commitments was prepared in 1994 taking account of all relevant budgets and using a much broader definition of environment which encompassed all spending on sustainable agriculture. This showed:

Assistance to the environment — 1994¹

Region/Field	Million ECU
Africa, Caribbean and Pacific	536
Mediterranean	26
Asia	105
Latin America	(est)28
Other budget lines dealing with environment and tropical forests	70
Central and Eastern European countries general environment	75
New Independent States general environment	12
Nuclear safety in CEECs and NIS	116
Research and development	(est)45
Specific actions (LIFE) for the Baltic and Mediterranean	5
Total	1 018

¹ None of these figures include loans administered by the EIB.

Cooperation with economies in transition

Central and Eastern European Countries (CEECs)

Fundamental change in central and eastern Europe since 1989 has brought a new era of cooperation with the European Union aimed at sustainable development. Cooperation on environment first developed through the multi-lateral Environment for Europe process launched in 1991 at the Dobris Ministerial Conference in which the Community played a leading role. The Community has continued to be actively involved in the evolving process and welcomed the 1995 Sofia Conference endorsement of the Environment Programme for Europe (EPE) which provides a framework for improved coordination of national and international efforts.

Since Rio the European Union has developed Europe Agreements with Poland, Hungary, the Czech Republic, Slovakia, Romania, Bulgaria, Latvia,

Lithuania, Estonia and Slovenia which lay the foundations for preparing these countries for membership of the Union. To further this process a pre-accession strategy was initiated in December 1994 and the Community's assistance programme for the CEECs, known as PHARE, will increasingly be devoted to implementing it. To make this possible a system of multiannual planning has been initiated for PHARE and the rules governing its use are being amended to allow greater promotion of infrastructure development and cross-border cooperation.

As far as the environment is concerned the pre-accession strategy will assist the CEECs to work on adopting the Community's environmental legislation and standards, as well as building the capacity to monitor and enforce their implementation. An ECU 10 million Technical Assistance Information Exchange Office has been set up. Another facility, DISAE, has been established specifically to help bring local law into line with that of the Community.

The PHARE programme

Financial support for the countries of central and eastern Europe started in 1990 and by 1995 some ECU 5 417 million had been committed. Disbursements began rather slowly and although they are now catching up, at a cumulative figure of ECU 2 897 million, they still lag behind commitments. In June 1995 the European Council announced its intention to provide ECU 6 693 million for the CEECs from the Community budget between 1995 and 1999.

The environment has been a priority area since PHARE's establishment in accordance with the wishes of the CEEC countries themselves. So far particular attention has been given to air pollution, waste water and water supply, waste management and the conservation of biodiversity. The emphasis has shifted gradually from technical assistance and institutional strengthening to include more support for investment. PHARE's multi-country programmes have been of particular importance in encouraging regional environmental cooperation particularly in the Black Triangle, the Black Sea, the Danube river basin, the Baltic Sea and through the Regional Environmental Centre in Budapest.

TACIS (Technical assistance to the Commonwealth of Independent States, Georgia and Mongolia)

Since 1991 TACIS has fostered the development of links between the European Union and the New Independent States by providing grant finance to support the process of transformation to market economies and democratic societies.

PHARE support to different components of sustainable development

(million ECU)

	1990	1991	1992	1993	1994	1995	Total commit- ment	%
Environment and nuclear safety	102.5	92.5	90	38.9	77.5	82	483.4	9
Social development and employment	3	35.5	48.2	15	28.5	47.3	177.5	3
Public health	0	45	15	26.5	13	2	101.5	2
Education, training and research	36.6	90	140.5	162.2	169.9	147.1	746.3	14
Civil society and democratization	0	0	9	10	16.2	10.5	45.7	1
Public institutions and administrative reform	10	26.5	25.2	65.7	81.9	24.6	233.9	4
Private sector development and enterprise support	64	180.5	191.5	194.5	93.4	139.2	863.1	16
Financial sector	7	40	44.7	61	56	40.5	249.2	5
Agricultural restructuring	136	89	80	78.5	17	40.6	441.1	8
Infrastructure	6.8	42.5	96.8	114.9	326.4	457.3	1 044.7	19
Other sectors	129.1	1 322	271.4	140.8	93.5	163.6	1 030.6	19
Total commitments	495	774	1 012	1 008	973	1 154	5 417	100
Total disbursements	171	284	436	521	723	762	2 897	

Know-how is delivered by providing policy advice, consultancy teams, studies and training, by developing and reforming legal and regulatory frameworks, institutions and organizations and by setting up partnerships, networks, twinning and pilot projects.

By 1995 ECU 2 268 million had been committed to TACIS programmes. As with PHARE disbursements lagged behind in the beginning but are gradually catching up and had reached a cumulative total of ECU 888 million by the end of 1995.

TACIS support to different components of sustainable development

(million ECU)

	1991	1992	1993	1994	1995	Total commit- ments	%
Nuclear safety and environment	53	80	100	88	108	429	19
Public administration reform, social services and education	103	42.3	79.9	63.6	99.4	388.1	17
Restructuring State enterprises and private sector development	37.5	79.6	94.5	78.7	72.4	362.7	16
Agriculture	80	60.5	32.2	41.6	48.3	262.6	12
Energy	65	39	38	43.7	42.3	228	10
Transport	49.8	33.2	32.8	22.8	21.1	159.7	7
Other sectors	8.3	84.3	94.8	131.4	119.6	438.4	19
Total commitments	397	419	472	470	511	2 268	100
Total disbursements	0	32	180	300	375	888	

The regulation covering TACIS support in the period up to 1995 required environmental considerations to be integrated into all programmes but did not make environmental protection a sectoral priority. As a result specific commitments to environmental projects as such were rather modest. However, over the last two years the TACIS programme has been required to spend 10% of its budget on the environment. For the first time some country programmes, notably those for Russia and Ukraine, have environment as a priority sector. Russia will be committing ECU 5 million a year for the next four years from its TACIS allocation for training, institution building and regulatory development. Inter-State programmes also have a substantial environment allocation for 1996-97, and the focus of TACIS is shifting further towards the environment. For example, TACIS recently launched a programme to place policy advisors in each New Independent State Ministry of the Environment, including Mongolia. A TACIS awareness raising programme for the public and environmental NGOs started in February 1997.

Assistance for nuclear safety to economies in transition

In addition to the environmental cooperation through PHARE and TACIS, the Community has been very active in reducing possible ecological and health

risks through the most important nuclear safety programme in the world. Details of the types of support given are set out in Chapter 22. In all some ECU 515 million was committed for the period 1991 to 1995, including ECU 62.5 million for the EU/G7 Action Plan for Ukraine aimed at the early closure of the Chernobyl nuclear power plant.



Chapter 34

Transfer of environmentally sound technology, cooperation and capacity building

Agenda 21 recognized that the transfer of technology related to environmentally sound processes and products was essential if all countries were to move towards sustainable development.

The European Union considers that private sector commercial transactions play the major role in technology transfer, and that such transfers are most likely to be fostered where the economic, institutional and legal frameworks in the receiving country are conducive to long term direct private investment. The Union therefore welcomed the outcome of the Unctad IX Conference held in Midrand, South Africa in 1996 which saw a new consensus emerging on the conditions required to encourage financial flows.

However, the European Union also recognizes that not all foreign investment involves environmentally sound technology and that in some cases outmoded polluting technology is used in overseas investments. Some have suggested banning the export of environmentally inferior technology, but the Community considers that this would be contrary to Principle 2 of the Rio Declaration which recognises the sovereign right of all countries to exploit their own resources pursuant to their own environmental and developmental policies. Thus the European Community considers that it is the regulatory requirements in force in the recipient country which should be the basic reference for determining the appropriateness of the technology being transferred. Nevertheless, the Commu-

nity also recognizes the responsibility of enterprises to care for the environment and welcomed the inclusion in 1992 of an environmental chapter in the OECD Guidelines for Multinational Enterprises. The Community considers that it would be appropriate to reproduce those Guidelines in the Multilateral Agreement on Investment now being negotiated in the OECD.

As suggested in Agenda 21, the Community has set in place a number of programmes both within the Union and for third countries to disseminate information on environmentally sound technologies and to improve access to them.

Technology transfer within the European Union

Although it may not be their prime objective, both the Structural Funds and the Research Framework Programme play a major role in transferring technology within the Union.

Other programmes are specifically aimed at disseminating technological information. For example the European Community's Sprint Programme published a new manual 'Good practice in managing transnational technology transfer networks' in early 1997 which aims to improve industrial effectiveness and efficiency by helping the smooth diffusion of new technologies throughout the European Union. It focuses on the role of small and medium-sized enterprises. The Innovation Programme also aims to stimulate a European 'open area' for the diffusion of technology and know-how thereby creating an environment favourable to innovation. Innovation also encourages the supply of appropriate technologies. Equally Community support for information technology is providing a powerful tool for spreading information or good practices on the latest research findings.

Technology transfer and developing countries

The transfer of technology through the provision of equipment and training is a major feature of all of the European Community aid programmes. However, specific initiatives have also been taken to provide information on environmentally sound technologies.

For example, the Regional Institute for Environmental Technology in Singapore was established jointly by the European Union and Singapore in 1994 to promote the transfer and exchange of know-how and services, between the European Union and Asia. It has already carried out a range of activities, including work on eco-labels in Thailand, an environmental assessment in Fujian Province, China, a hazardous waste study in the Philippines and an evaluation of leather related environmental technology in Bengal and environmental auditing training courses.

The European Community is also financing the Technology Information Centre (TIC) in India. Set up in 1995 jointly with the Confederation of Indian Industry, the aim of the Centre is to disseminate information on commercially proven and available technologies to help Indian industry. The TIC provides information on indigenous and international industrial technologies, and general intelligence on markets and suppliers. The Centre focuses on industries which are particularly in need of clean technologies such as pulp and paper mills, drugs and pharmaceuticals, leather tanning, pesticides, cement and dye intermediates.

One particularly innovative recent technology transfer initiative is the MED-Techno Programme to improve the application of efficient technologies in the European Union's 12 partner countries in the Southern Mediterranean. The Programme also aims to stimulate cooperation between countries, thus contributing to the development of regional approaches to common problems. The first target for MED-Techno is the management of limited water resources in the face of rising regional demand. The initial focus will be on the treatment and reuse of waste water from medium-sized municipalities of up to 250 000 inhabitants, and from small and medium-sized enterprises. MED-Techno should lead to joint research programmes, increased technology transfer and practical pilot projects for wider take up. The emphasis is very much on cooperation and a pooling of expertise.

Another regional approach to technology transfer is the AL-Invest programme which forms part of the European Community's economic cooperation with Latin America. Some ECU 10 million was provided in 1994 and 1995 to foster mutually beneficial transfers of technology and know-how and to establish business partnerships between Latin American and European firms.

Indeed, the Community considers that joint ventures between enterprises in industrialized and developing countries are often a good way to transfer technology and know-how. European Community Investment Partners is a facility which promotes joint ventures between local and European operators using aid resources. Between 1988 and 1993 over 1 000 projects in Asia, Latin America and the Southern Mediterranean had received support worth nearly ECU 120 million and the scheme has since been expanded.

Technological cooperation with the economies in transition

In addition to funding many training schemes and the provision of equipment, the Community is supporting structural reform projects which should encourage the use of environmentally sound technologies by the private sector. For example, TACIS, in conjunction with the EBRD, has financed the preparation of guidelines for investors on environmental liability and has assisted model projects in environmental auditing.



Chapter 35

Science for sustainable development

The European Union considers that science has a vital role in the formulation and implementation of its policies for sustainable development. Considerable investment is made by the Community in research and development which contributes to the European Union decision making process. The objectives set by Agenda 21 of strengthening the scientific basis for sustainable management, enhancing scientific understanding, improving long-term scientific assessment and building up scientific capacity and capability, have been incorporated into the Community's research strategy whose primary aim is to develop scientific and technological excellence in Europe.

Research programmes for Europe

The European Community carries out its research and development policy through a series of five year Research Framework programmes. The current (1994-98) Fourth Research Framework Programme has a total budget of ECU 13 100 million and involves four main areas of activity:

- Research, technological development and demonstration programmes;
- Cooperation with third countries and international organizations;
- Dissemination and implementation of results;
- Stimulation of the training and mobility of researchers.

Approximately 85% of the total funding available will be allocated to programmes within the first activity which is mainly directed at research within Europe. Some ECU 575 million or 4.4% of the total will be allocated to research with third countries.

The key objective of the Fourth Research Framework Programme is to use research and development to boost European competitiveness which in future will be determined by the Member States' ability to meet a number of challenges, notably reinforcing the economic impact of investment in Research and Technological Development (RTD), enhancing the quality of life, and ensuring that society is able to adapt harmoniously to technological progress. Consequently the Fourth Programme places RTD in a broader context, involving close links with other Community policies, and making full use of supporting measures promoting training and mobility, the dissemination of the results of research, and research into new work organization methods.

The Fourth Research Framework Programme is based on the European Community's view that there is a close link between investment in technological development and a nation's industrial strength and that sectors such as biotechnology, telecommunications and telematics applications will be the driving forces in tomorrow's economy. Activities under the Fourth Programme should also enable the Member States to derive greater socioeconomic benefits from their investment in RTD, particularly in terms of job creation. In this context, the Programme seeks to improve the links between basic research and commercial applications in Europe and to help translate new ideas into new products. Given the important role of small and medium-sized enterprises in the technological innovation process, specific procedures have been put in place to ensure that they play a bigger part in the Programme.

Sustainable development is a recurring theme of virtually all the activities under the Fourth Research Framework Programme, since reconciling industrial development with environmental protection is one of the most pressing priorities. The sustainable development theme is particularly clear in areas such as industry, energy and transport. For example the Industrial Material Technologies Programme researches production technologies with the intention of developing clean processes and the rational management of raw materials. It also supports the development of new technologies for product design and manufacture, materials engineering and recovery at the end of a product's life-cycle. Another Programme with a strong focus on environment is Esprit which supports research and development in information technology for the information society. By early 1997 more than 100 Esprit projects included applications in the environmental field such as information systems for the prevention of natural disasters, or for monitoring production processes.

Research programmes in life sciences and technologies including biotechnology, agro-industry and medical research have integrated sustainable develop-

ment and environmental protection in their goals. For example, the biotechnology research programme has supported a major project on plant molecular biology for an environmentally compatible agriculture and an entire sector is devoted to examining the environmental risks of releasing genetically manipulated organisms. The potential for improving the effectiveness of bio-remediation processes for environmental clean-up is also addressed.

Within the Fourth Research Framework Programme around ECU 1 150 million has been earmarked for two specific environmental research programmes. The Environment and Climate Programme supports interdisciplinary research into environmental quality and global change, environmental technologies, Earth observation, and the human dimension of environmental change. The Programme focusing on marine science and technologies covers research into marine systems, extreme marine environments, regional seas, coastal and shelf seas, coastal engineering, and generic marine technologies.

Some of the Research Programme is carried out by the Commission's own Joint Research Centre (JRC). The Centre has increased its environmental activities through the Environmental Institute which plays an important role in the implementing, updating and adoption of existing legislation and in the preparation of new legislation, in the dissemination of information, and in the collection and analysis of data. The JRC's Institute for Space Applications has a leading role in remote sensing and in international research on global change.

The Fourth Research Framework Programme is also concerned with social issues and in particular with managing the impact of technologies on society more effectively and anticipating future priorities. The Fourth Programme is the first to include research on technology forecasting and assessment, on education and training needs and methodologies, and on social integration and social exclusion.

Scientific and technological cooperation with developing countries and economies in transition

The European Community has had joint research projects with developing countries since 1983. Within Activity 2, International Cooperation, of the Fourth Research Framework Programme, some 43% of the ECU 540 million available for the period 1994-98 is earmarked for cooperation with developing countries, on the basis of mutual benefit and in synergy with the Union's external policies, notably its development cooperation and economic cooperation efforts. The main goal of scientific cooperation with developing countries is support to sustainable development, in line with European Union commitments made at UNCED. The International Cooperation Programme (INCO) is actively supporting a large number of joint research activities and accompanying measures involving scientists in the European Union Member and developing countries.

The research is targeted mainly on the sustainable use and management of natural resources and on agriculture, agro-industry and human health.

In September 1994, as part of its research effort to help developing countries, the Council agreed to launch a European initiative on agricultural research for development and asked the European Commission to prepare a blueprint for its implementation. The initiative will provide a mechanism for intra-European coordination as well as for more efficient and cost-effective collaboration with national research systems in developing countries, with the private sector and with the international research centres of the CGIAR.

The need for cooperation with the countries of eastern and central Europe was first highlighted in a Resolution of the European Parliament in 1990 and got underway in 1992. By 1994 some ECU 200 million had been committed from the Third Research Framework Programme and other sources to more than 600 cooperation projects with these countries. Many of the projects concerned environmental protection, renewable energy and research on nuclear safety.

Scientific cooperation with the New Independent States also got underway in 1992 when an agreement was signed with Russia, Ukraine and Belarus to support international research on the consequences of radiation from the Chernobyl disaster. More than 120 laboratories in the European Union and 80 in the three NIS states have been involved in the work. In the same year the Intas scheme was established to enable scientific cooperation with all the NIS states through projects linking at least two laboratories in Community countries with a laboratory in a NIS state. Within two years nearly 3000 research centres, of which 1200 were in the NIS, were involved in Intas supported projects.

Both the central and eastern European countries and the NIS will benefit from the Fourth Framework International Cooperation Programme and indeed will receive the bulk of the resources not reserved for developing countries.



Chapter 36

Promoting education, public awareness and training

Education, training and the raising of public awareness were highlighted by Agenda 21 as having relevance to all aspects of sustainable development. They are particularly important in facilitating the participation of major groups (Chapters 23-32).

Education and training in Europe

Education is primarily a matter for the Member States but the Community has important programmes encouraging students and trainees to undertake periods of study in another Member State and facilitating cooperation and networking between universities and training institutions in different Member States. These programmes, known as Socrates and Leonardo, have been extended to the Union's neighbours in Europe and an additional programme, Tempus, assists the participation of the Associated Countries of central and eastern Europe. Socrates has a budget of ECU 850 million for 1995-99 to encourage student and pupil exchanges between colleges and schools in different Member States. It also encourages the use of information technology and helps the education of migrant workers. In 1995 Socrates enabled 160 000 young people to study in other Member States. The Leonardo Programme has a budget of 620 million ECU for 1995-99 and supports transnational programmes aimed at improving vocational training. 700 projects were supported in 1995.

The Community's Comenius programme, which is part of Socrates, is designed to strengthen links between European schools. Under the scheme, schools from across the Union work to develop European education projects which focus on topics of mutual interest. The Community believes that education is a crucial first step towards the goal of sustainable development. Thus, particular attention is paid within Comenius to environmental issues, as well as science and technology.

Studies in the late 1980s showed that there was little institutional recognition within the European Union of environmental education. Particular problems identified were teacher training, the organization of interdisciplinary work and the suitability of available teaching materials. A recent review has shown that improved coordination between the Community and Member States, including new common approaches, has assisted in producing significant progress in integrating environmental education into the basic school curriculum. There has also been a proliferation of teaching materials at all levels of education.

The last few years have seen a substantial increase in the number of university places available for first degrees, masters and doctorates in environment studies. In particular the establishment of the European Masters in Environmental Management in nine European Union universities has helped to raise the profile of environmental studies in tertiary education. Teacher training in environment studies is also gradually being introduced into training colleges and universities.

Education and training in development cooperation

The European Commission's post Rio policy document, Horizon 2000 setting out an approach to development cooperation stressed that education had a greater correlation with the level of development than any other factor. Thus education and training are essential elements within the European Union's development cooperation, and in May 1993 the Council identified this as one of the priority sectors for ensuring that the Community, Member States and other major donors activities were well coordinated. To assist this process, the Council adopted a Resolution in December 1994 on coordination in the field of education and training which advocated an approach based on an overall programme of reform, institutional development and capacity building, rather than individual projects. The Resolution also gave priority to improving the quality of education; ensuring access to primary education for all; increasing the availability of vocational training; and promoting opportunities for educationally disadvantaged groups.

The European Community's educational aid programmes include support for environmental education. For example support is being given to a general reform of primary education in the Sahel region which is intended to make

education more relevant to local economic conditions. Within the programme, a training and information project aims to encourage environmental awareness amongst school children in the hope that this will influence their families.

Public awareness

The European Commission has developed a comprehensive communication and information strategy focusing on three target groups — journalists, specialized groups and the general public. Awareness raising activities have included, for example, conferences on car-free cities and briefing materials for trade unions. Much of the support given to NGOs also assists activities designed to raise public awareness.

The European Union's Information Relays and Networks play an important role in promoting awareness. The system includes the European documentation centres in universities, Info-Points Europe and major information centres such as 'Sources d'Europe' in Paris, the Jacques Delors Centre in Lisbon and the information centre in the Jean Monnet House in Berlin.

Public awareness raising is also a component of development cooperation. For example, an Integrated Sanitation Programme in São Tomé and Príncipe not only provides infrastructure but also training to enable local staff to extend sanitary and environmental awareness. The programme is a successful collaboration between local government, NGOs, Unicef and the European Community which has the active involvement of the local population.

The European Environment Agency is playing an important role in public awareness and access to environmental information by different means including the World Wide Web, information and publications. In addition, the European Environment Agency supports environmental education and training by preparation and dissemination of environmental information products and environmental management tools for the general public and for policy-makers.



Chapter 37

National mechanisms and international cooperation for capacity building in developing countries

Agenda 21 emphasized that the sustainable development of a nation was determined as much by the capacity of its people and its institutions as by its geographical and ecological conditions.

Capacity building through European development cooperation

The Treaty on European Union adopted in 1992 included a chapter on development policy for the first time and set as the basic objectives: sustainable economic and social development particularly of the most disadvantaged developing countries, the integration of developing countries into the world economy and the eradication of poverty. At the end of 1992, and in the light of both the Treaty change and the outcome of the Rio Conference, the Council established European Community guidelines on development cooperation policy in the run up to 2000. The basic Horizon 2000 document has since been supplemented by a number of policy Resolutions which are set out in Chapter 2.

In most of these policy statements, reference is made to capacity building and the Community very much endorses the principle that capacity building should

be a priority of development cooperation. Examples of support given to that end are to be found in many of the Chapters of this report.

It is also important that donors coordinate activities and that experience in all fields, including capacity building, be shared. The Community has worked closely with Member States to that end and was the prime financial sponsor of an OECD Workshop on Capacity Development in Environment held in Rome in December 1996. The main objective of the Workshop was to generate broad support amongst policy-makers and development cooperation staff, in both OECD and developing countries, for the promotion and proactive implementation of capacity building in environment. It was attended by 140 participants from 25 developing countries, 20 OECD States and a number of international organizations. The Workshop used 46 specially assembled case studies to take stock of past approaches and identify factors for success and reasons for failure which needed to be taken into account in future work. It also provided participants with a great deal of useful material and tools for use in their capacity building efforts. As a result of the Workshop the OECD's Development Assistance Committee's 'Guidelines for donor assistance to capacity development in environment' are to be expanded and published as a user-friendly reference volume.

Scientific cooperation and capacity building

Education, science, and technology transfer are three crucial and closely linked components of capacity building and the European Community's Research Framework Programme has long supported cooperation in this field. In addition to conventional forms of capacity building such as financing post-doctoral fellowships in European institutions, the programme's strong emphasis on joint research linking scientists in developing countries with those in Europe helps to give those in developing countries easier access to a wide range of scientific knowledge. The emphasis given by the Research Framework Programme to the effective dissemination of research results from individual projects or groups of projects as well as the stimulation of key scientific areas through scientific workshops, with wide participation from European and developing country scientists also helps capacity building.

Further information on scientific capacity building is given in Chapter 31.



Chapter 38

International institutional arrangements

This chapter of Agenda 21 assigned tasks to a number of different bodies within the UN family and urged the creation of the Commission of Sustainable Development (CSD).

The European Community was granted full participant status in the CSD and has played a full part in its work, not least in producing a report on Community activities for each of its sessions. Equally the Community is active in the work of UNEP and provides financial support to it.

The Union as a whole has taken part in the process of UN reform set in train since Rio and is a strong advocate of the need to strengthen Ecosoc in accordance with UNGA resolution 52/227. The European Union will seek to ensure that the review of Ecosoc's Functional Commissions under that Resolution leads to a more integrated follow up to the major conferences held since Rio.

The European Union has stated that it sees a need to strengthen the international institutional arrangements for the environment over the longer term and looks forward to UNGASS as a step in that process.



Chapter 39

International legal instruments and mechanisms

A number of the Rio Principles are now incorporated in the European Community Treaty. This requires the environment policy of the Community to be based on, *inter alia*, the precautionary principle and the 'polluter pays' principle. The Treaty also requires environmental protection to be integrated into the definition and implementation of other Community policies.

The Member States have conferred competence on the Community in areas covered by the Conventions on Climate Change and Biodiversity. The Community is therefore a party to these Conventions, alongside the individual Member States. The same is true under a number of other Conventions, and in all the European Community participates in 31 international environmental Conventions and Agreements.

The Community is responsible for the adoption of internal implementing measures for the Conventions which it ratifies. The Community also has responsibility for ensuring that Member States correctly implement European legislation including that related to international agreements. However, responsibility for implementation on the ground usually rests with the Member States who are also normally responsible for financing operational commitments made under such international agreements.

The Community participated in 1996 in the expert meeting which formed part of the mid-term review of the UNEP Montevideo Programme for the Development of Environmental Law for the 1990s and warmly welcomed the resulting decision of the UNEP 19th Governing Council.



Chapter 40

Information for decision-making

As recognized in Agenda 21, sound sustainable development decisions can only be made where there is accurate, complete and relevant information on environmental, social and economic factors. The European Union is working to improve its information base in various ways.

Eurostat

Eurostat is the statistical office of the European Community and works closely with other European, United Nations and international institutions and environmental bodies, as well as providing environmental information to the public.

Its main environmental work covers physical data, statistics on environmental pressures resulting from human activity and the interaction of economic and environmental statistics, focusing particularly on 'green accounting'. The Environment Unit is currently developing the environmental component of Community statistics in order to ensure both that gaps in information are identified and filled and that data is comparable.

A series of satellite accounts consistent with the UN System of integrated Environmental and Economic Accounting (SEEA) is under construction through a collaborative effort involving Eurostat with the statistical offices of the countries of the European Union. These accounts will cover stocks and use of natural resources, emissions of pollutants, environmental protection expendi-

ture, and eco-taxes. The Fourth Research Framework Programme is helping to define indicators for the accounts.

The European Commission and bodies such as OECD have been collaborating for several years on the development of environmental indicators. The aim is to identify better ways of incorporating environmental and social concerns into national accounts. International work is progressing on better indicators of the state of the environment and of related trends, better measures of the pressures affecting environmental conditions, and better measures of the impacts of policy and other interventions.

Eurostat takes part in the Sustainable development indicators (SDI) work programme of the CSD. Eurostat conducted a pilot project using 40 of the CSD's proposed list of over 130 SDIs which were of relevance for the European Union and for which data was available for most Member States. A booklet presenting the data and drawing conclusions from the pilot project was prepared for the Fifth Session of the CSD.

The European Environment Agency (EEA)

The European Environment Agency, which is a self-standing Agency of the European Community located in Denmark, started its activities in late 1993. Norway, Iceland and Liechtenstein joined the EEA in 1995.

In accordance with its founding Regulation, the purpose of the EEA is to provide the European Community and its Member States with objective, reliable and comparable information at European level thereby enabling policy makers to take the appropriate action. The EEA is also charged with ensuring that the public is properly informed about the state of the environment. To fulfil its mandate the EEA publishes objective reports about the state of the environment and likely future trends, and analytical reports on the effectiveness of current environmental policies and new policy instruments to tackle emerging and continuing environmental problems.

The EEA works through the European Information and Observation Network (Eionet) which consists of reference centres in every Member State coordinated by National Focal Points as well as a number of European Topic Centres which work at European level on specific media such as air quality and atmospheric emissions, inland waters, the state of soils, land cover and natural resources, nature conservation, the marine and coastal environment, and waste management.

Probably the most important publication of the EEA to date is the Dobbris Assessment. This was initiated at a first Conference of Pan-European Environment Ministers held in 1991 and produced for the third ministerial 'Environment for Europe' Conference held in Sofia in 1995. The Assessment sets a

baseline for future monitoring and gives an overall view of the state of the environment and the pressures it faces across the whole continent. The report, which covers nearly 50 countries and runs to 600 pages, is accompanied by a statistical compendium prepared by Eurostat, the EEA, UNECE, WHO and OECD. The Assessment was used extensively in the preparation of UNEP's first Global Environmental Outlook Report. Ministers have requested a progress report on the main environmental issues identified in the Dobris Assessment to be ready in advance of the next conference to be held in Aarhus in June 1998. Help has been provided by the PHARE Programme to enable central and eastern European countries to participate in the work.

Also in 1995, the EEA produced a separate report entitled 'Environment in the European Union' which provided much of the basic information for the review of the Fifth Environmental Action Programme.

Fourth Research Framework Programme

The Research Programme plays a role in developing methodologies for information collection and analysis.

The environment and energy components of the Fourth Programmes are being used to develop methods for the monetary valuation of environmental damage. The work is concentrating on quantifying environmental costs relating to the energy and transport sectors.

The Research Programme has also sponsored a major analysis of the constraints and opportunities for cost-effective implementation of earth observation techniques (remote sensing) in developing countries. On the basis of the analysis consideration is being given to ways of ensuring that remote sensing work better responds to the perceived needs of developing countries.

Annex

A brief guide to the European Union

	Area 000 km ²	Population millions	GDP per capita 1996 ECU at current prices	Human development Index ranking 1994
Austria	84	8.0	21 553	14
Belgium	31	10.1	20 455	12
Denmark	43	5.2	26 100	16
Germany	357	81.5	22 763	15
Greece	132	10.4	9 132	22
Spain	506	39.2	11 720	9
France	544	58.0	20 810	8
Finland	338	5.1	18 999	5
Ireland	70	3.6	15 509	19
Italy	301	57.2	16 353	20
Luxembourg	3	0.4	32 942	27
Netherlands	42	15.4	19 892	4
Portugal	92	9.9	8 481	36
Sweden	450	8.8	22 567	10
UK	244	58.3	15 297	18
EUR 15	3 236	371.5	18 088	—

The European Union is described in UN parlance as a 'Regional economic integration organization'. However, it is much more than this. The 15 Member States of the Community aspire to work together to promote balanced and sustainable economic and social progress. This partnership works within the principle of subsidiarity — that decision making and action is taken at the most appropriate level.

The European institutions

The **Community institutions** (Council, European Parliament, European Commission, Court of Justice) provide the executive, legislative and judicial arms of governance for the Union. Their roles are set out in the Treaty on European Union.

The **European Council** is the twice yearly meeting of all the European Heads of State or Government, and the President of the European Commission, assisted by Foreign Ministers and a Member of the European Commission.

The **Council** is made up of representatives from the Member States taken from Ministerial level. Meetings are attended by different ministers according to the subjects under discussion. Hence Council meetings on foreign affairs are attended by Foreign Ministers and meetings about environmental issues are attended by Environment Ministers. There is also a Permanent Representatives Committee comprised of Member States' Ambassadors to the Union, which prepares the work of the Council. The Council formally adopts European laws and directs intergovernmental cooperation under the headings of Community activities, common foreign and security policy, and justice and home affairs. The Presidency of the Council rotates every six months.

The **European Parliament** is directly elected. It votes on the budget and shares legislative power with the Council. It can demand the resignation of the European Commission as a measure of last resort. The Parliament acts as a watchdog body and can question the Council and the Commission. It must be consulted for its assent on decisions of major importance such as international agreements.

The **European Commission** has 20 members (two each from France, Spain, UK, Germany, and Italy, and one from each of the remaining Member States). Commissioners are appointed by national governments but sit independently. Each Commission Member is responsible for one or more policy areas, although decision-making within the Commission is collegiate. The European Commission upholds the Treaties of the Union, and has the sole right to initiate legislation. It is the executive body of the Union.

The **European Court of Justice** is responsible for legal review and the settlement of disputes on rights and obligations of Community institutions or

the Member States under Community law. It is also the competent authority in matters of Treaty interpretation, and is empowered to enforce, interpret or overturn legislation or other acts of the Council and the European Commission at the request of Community institutions, Member States, national courts or individuals.

Decentralized agencies

A series of decentralized agencies were established at the beginning of the 1990s to provide technical advice to Community institutions and Member States.

The **European Environment Agency** is a decentralized agency. Its aims are to provide objective, reliable and comparable information on the state of the environment at a European level.

Types of legislation

All **Member States** have transferred legislative and executive competence on a number of matters to the European Community. Community legislation is of a binding nature, is intended to be uniformly implemented throughout the Community and has supremacy over national law. It is proposed by the European Commission and adopted by the Council and, in accordance with the Treaty on European Union, the European Parliament, and may take one of a number of forms, outlined below:

A **Regulation** has general application, is binding in its entirety and is directly applicable in all Member States.

A **Directive** is binding on all those to whom it is addressed as to the result to be achieved and the time within which to achieve it. The Member States transpose the directive into national law and choose the means of implementation. This allows for better integration of Community legislation into the different legal systems of the Member States.

A **Decision** confers rights or obligations only on those to whom it is addressed.

Glossary of abbreviations and acronyms used in the report

ACP	African Caribbean and Pacific countries linked to the European Union through the Lomé Convention
ASEAN	Association of South-East Asian Nations
Avicenne	The specific scientific cooperation initiative (1992-94) for the Mediterranean region
BAT	Best available technique
CAP	Common agricultural policy
CEMR	Council for European Municipalities and Regions
CFP	Common fisheries policy
CGIAR	Consultative Group on International Agricultural Research
CMO	Common Market Organization of the Common Agricultural Policy
CSD	UN Commission for Sustainable Development
CTE	Committee on Trade and Environment of the WTO (<i>cf</i>)
DRIVE	European Community action programme for transport telematics
EBRD	European Bank for Reconstruction and Development
ECOS	Cooperation programme between cities in the Union and in central and eastern Europe
Ecosoc	Economic and Social Committee of the European Union
ECU	European Currency Unit (1 ECU = USD 1.16 in March 1997)
5th EAP	Fifth Environmental Action Programme of the European Community
EDF	European Development Fund
EEA	European Environment Agency

EIB	European Investment Bank
EMAS	Eco-Management and Audit Scheme
ERDF	European Regional Development Fund
ESF	European Social Fund
ETFRN	European Tropical Forest Research Network
FIFG	Financial Instrument of Fisheries Guidance
FP	Research and Technology Development Framework Programme, currently in its fourth edition (1994-98)
G7	Group of 7 — United States, Canada, France, Germany, Italy, Japan, United Kingdom
GSP	Generalized system of preferences
HIPC	Heavily indebted poorest country
Horizon	Community initiative to promote the social integration of disabled and disadvantaged people
HYCOS	Hydrological Cycle Observing System
Iclarm	International Centre for Living Aquatic Resources Management
ICLEI	International Council for Local Environment Initiatives
ICRI	International Coral Reef Initiative
IMF	International Monetary Fund
INCO	International Cooperation Programme of the Fourth RTD Framework Programme
INCO-Copernicus	the part of INCO dealing with CCE/NIS
INCO-DC	the part of INCO dealing with developing countries in Asia, Africa and Latin America
INTAS	International Association for the promotion of cooperation with scientists from the New Independent States of the former Soviet Union
IOMC	International Organization for the Sound Management of Chemicals
IPCS	International Programme on Chemical Safety
IPF	Intergovernmental Panel on Forests
IPPC	Integrated Pollution Prevention and Control
ISC	The bilaterally managed International Scientific Cooperation Initiative targeting mainly Asian and Latin American countries
JRC	Joint Research Centre of the European Union
MAST	Marine Science and Technology Programme
MEA	Multilateral Environmental Agreement
MED URBS	Cooperation programme between cities in the Union and in the southern Mediterranean area
NGO	Non-governmental organization
NIS	New Independent States (of the former Soviet Union)
OECD	Organization for Economic Cooperation and Development

PHARE	European Community assistance programme for Central and Eastern Europe
PIC	Prior Informed Consent for trade in hazardous chemicals
POP	Persistent Organic Pollutant
SADC	Southern African Development Corporation
SME	Small and medium-sized enterprise
Sprint	European Community action programme for innovation and technology transfer
STD 1, 2 and 3	Science and Technology for development programmes corresponding to FP 1, 2 and 3
TAC	Total allowable catch of fish
TACIS	European Community assistance programme for the NIS (<i>cf</i>), Georgia, and Mongolia
TETNs	Trans-European transport networks
Thermie	European Community action programme for energy saving and rational use of energy
Unced	United Nations Conference on Environment and Development — the Rio Conference
Unctad	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNFPA	United Nations Population Fund
UNGASS	United Nations General Assembly Special Session on the follow up to UNCED (<i>cf</i>)
UNIDO	United Nations Industrial Development Organization
URBAN	Community Initiative for urban areas
WHO	World Health Organization
WTO	World Trade Organization

Further reading

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